

McDonnell Douglas / Boeing

F-15 Baz

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Introduction

The roots of the F-15 service with the Israeli Defense Force/ Air Force (IDF/AF) lie in the early 1970's, when the transition from French supplied arms to American weaponry was nearing completion. Indeed, US manufactured military hardware has been obtained by the IDF before the 1967 French arms-embargo but was only defensive in nature and meticulously balanced by the State Department with weapon supplies to the neighboring Arab countries. The embargo also made Israel recognize its need for a self-reliant arms industry. The foundations for this industry have already been laid within Israel Aircraft Industries (IAI) and Israel Military Industries (IMI) but the abrupt French turnaround forced IAI to shift its status from aircraft maintenance and small scale upgrading, to assemble its first fighter aircraft – the Nesher (Mirage 5). In parallel to the Nesher program, the IAF established a team designated 'Hadish' (Hebrew for new or modern), headed by Colonel Micahel Na'aman, to evaluate the requirements of its next generation fighter, review existing and future designs throughout the world and most notably, determine whether such an aircraft could be designed and produced locally. While this team was formed and began its work, an IAF delegation headed by Maj. Gen.



Binyamin (Benny) Peled had visited the United States, evaluated the next generation of fighters for the United States Air Force (USAF) and United States Navy (USN) and was extremely impressed from the F-15. Meanwhile, the "Hadish" team has realized that developing and producing an Israeli fighter locally would take years to accomplish. The October 1973 Yom-Kippur War put an abrupt stop to its work. This war had a shocking effect on the State of Israel, the IDF and the IAF. The high attrition rate of IAF A-4 and F-4 aircraft during the war necessitated to

In the course of 1976 the first five IAF F-15 pilots conducted familiarity training at USAF Luke AFB, Arizona. Above, third from left is Saul Simon and to his left are Eitan Ben-Eliyahu, Joel Feldschuh and Moshe Melnik, with Benny Zinker at far right. AF 72-117 is one of the first four Cat II Aircraft delivered to the IAF later that year. Below right are Moshe Melnik and Saul Simon. Below left is Moshe Melnik after his solo flight in Luke AFB.

Photos: Moshe Melnik collection





Top left: IAF aircrew near the aircraft flight-line.

Photo: Moshe Melnik collection

Top right: 'Knights of the Twin Tail' first CO, Lt.-Col. Eitan Ben-Eliyahu, after the solo flight on an F-15, soaking wet after the traditional IAF wash. Five years later, Joel Feldschuh (with sun glasses) will become the first CO on the second 'Baz' squadron.

Photo: 'Knights of the Twin Tail' squadron



substantially reinforce aircraft inventory of the IAF in both quantitative and qualitative factors. Additional deliveries of the F-4E and the plans to produce the IAI Kfir could cover the quantity requirements. The deliveries of MiG-23 and MiG-25 to Arab Air Forces persuaded the IDF to seek an advanced air superiority aircraft, even in small numbers. The 'Hadish' team renewed its work when the war was over when it was clear that Israeli deterrence has declined severely. The new IAF fighter would be a move to regain this fundamental defense policy. While continuing its work on the next generation Israeli combat aircraft,

the 'Hadish' team, now designated 'Arie' (Hebrew for lion) as an indigenous Israeli fighter design, was also assigned with the mission of evaluating the two leading US fighters being developed at the time, the McDonnell Douglas (MD) F-15 Eagle and the Grumman F-14 Tomcat. Shimon Peres, the Israeli Foreign Affairs Minister, has submitted an official request to study both aircraft in June 1974 and his request was approved by the Ford Administration.

The 'Arie' team, now led by Colonel Amnon Arad, arrived to the US in September 1974 to commence test flights with the F-15. The most advanced aircraft the team members had flown until then was the F-4E and they were highly impressed when acquainted with the Eagle. As Omri Afek, a member of the team, told later to the IAF Magazine: "In many cases the (F-15's) performance was beyond our anticipation. In Israel, we had an ongoing debate which fighter was superior: the F-4E or the Mirage III. The answer you've got depended on whom you ask the question, however, regarding the F-15 there was no argument. It was superior to any other aircraft". When the team tested the F-14, they were already "F-15 addicted" and this bias has frustrated the Tomcat demonstrators. But the F-14 had some real problem of its own, decreasing its chances to win the competition. The F-14 Achilles' heel was its delicate and underpowered engines, a problem that would plague the aircraft for two more decades before a advanced powerplant would be



Above: Joel Feldschuh after a solo flight on a USAF F-15A no.73-0103. Note high-visibility white and red stripes applied.

Photo: 'Knights of the Twin Tail' squadron

Right: Tel-Nof AFB CO Brig.-Gen. Ran Ronen (Pekker) addressing 'Knights of the Twin Tail' squadron formation team on November 28th, 1976, four weeks before the arrival of the first aircraft.

Photo: Ra'anana Weiss collection



installed. When flown by the IAF pilots the Tomcat performance was inferior to the F-15 in almost every aspect. However, the decisive factor against the Tomcat was when Omri Afek managed to keep an F-14 in his sights while flying an outdated adversary USN A-4. Taking the back seat in the F-14 was Amnon Arad, the team leader, that later described the dogfight from the victim's eye: 'The F-14 pilot made every possible mistake and got stuck with no airspeed to spare. Omri was all over us, 'stitching' us with simulated gun passes...the Americans had all kinds of explanations for what happened in that fight. When talking about the F-14 they always had explanations and excuses'.

In addition to its inherent flaws, the F-14 was also more expensive than the F-15, both on fly-away and flight-hours costs. One field in which the F-14 was superior to the F-15 was long-range interception, utilizing its AIM-54 Phoenix missiles and AWG-9 radar system but this capability was useless for air battles the IAF has encountered in the Middle-East.

The team's final report stated that the F-15 was superior to the F-14 in all aspects relevant to IDF/AF operations and heartily recommended its purchase.

The US officially proposed selling the F-15 to Israel, the first foreign customer, in December 1974 with initial delivery to begin in late 1975.

However, Israel was to learn and not for the last time, that politics has a strong influence in every arms contract with the USA. In March 1975, the negotiations between Israel and Egypt reached a dead end after Israel refused a US demand to withdraw from the 'Mitla' and 'Gidi' central passes of the Sinai Peninsula and to return the Abu Rudeis and Ras Sudar oil-fields located near the Gulf of Suez without any substantial Egyptian gesture in return. This demand came directly from the Secretary of State Henry Kissinger, who was trying to shift Anwar Sa'adat, the Egyptian leader, from USSR patronage to USA sponsorship, assuming Israeli compliance to any US requirement. When Israel refused this request, the Ford Administration declared it would 're-asses' its relations with Israel and immediately withheld all arms contracts in progress with Israel. This step enraged many Israel supporters in the US Senate, causing President Ford to realize that Israel needed some compensation in exchange for its withdrawal.



Left: Lt.-Col. Eitan Ben-Eliyahu communicating with the arriving aircraft. To his left is Brig.-Gen. Ran Ronen (Pekker).
Photo: 'Knights of the Twin Tail' squadron

When the Ford Administration guaranteed Israel's oil supply and committed to keep the Israeli qualitative edge over its neighbors the road to the September 1975 Interim Agreement was paved and the IDF/AF Eagles were set free.

The \$625M contract for sale of 25 F-15s was signed in September 1975, when Israeli and US interests clashed again, this time in a smaller scale.

The IDF/AF sought the first F-15s as fast as possible, preferably in early 1976. However, the USAF was also introducing the F-15 into service and was given top priority, with export Eagles delivery expected approximately a year later. An unpredictable solution was devised utilizing aircraft from the F-15 development test program. Claiming a flawless safety record with no accidents or losses, the F-15 development program offered a significant number of airframes that could be brought up to

Below: USAF F-15A no.72-0117 shortly after landing.
Photo: IDF Spokesman

Bottom: USAF F-15A no.72-0116 landing at Tel-Nof AFB. Note the smaller dorsal airbrake. This feature characterized all four Category II full scale development (FSD) F-15As delivered to the IAF.
Photo: Ra'anana Weiss collection



Right and below: F-15A no.72-0118 taxiing towards the welcoming ceremony area at Tel-Nof AFB. With the three aircraft depicted in these pages was F-15A no.72-0120 that landed in Italy after facing technical problems.

Photo: Ra'anana Weiss collection



Below right: Israeli Prime Minister Yitzhak Rabin addressing the audience.

Photo: 'Knights of the Twin Tail' squadron

Below: The Prime Minister conversing with one of the USAF pilots that participated in the ferry flight of the first F-15s. Between them (concealed) is IAF Commander Maj.-Gen. Benjamin Peled.

Photo: Ra'anana Weiss collection



F-15A production standards, solving the problem for the Israelis. An IAF team selected 4 airframes from the early F-15s line to be the first aircraft of 'Peace Fox I', the Foreign Military Sales (FMS) code name for the IAF F-15 deliveries. These aircraft were upgraded to almost production standard by MD. The first four Eagles (USAF numbers 72-0116/ 0117/ 0118/0120 becoming IAF numbers 620, 622, 644 and 646) were scheduled to arrive on 10 December 1976, but en route to Israel one aircraft (72-0120) experienced a technical failure and had to land in Italy. The remaining aircraft landed at Tel-Nof AFB on 15:00 hours, and were received at the first Eagle

squadron two days later. The new squadron infrastructure, technical routines and maintenance procedures were influenced and resembled those of the USAF, when the formation team members implemented what they have seen and absorbed during their training at Luke AFB, Arizona. With this approach taken, the IAF completed the change from the French era to the American era. The process that was initiated with the F-4 and A-4 was now completed.

The first year of the F-15 quartet with the IAF was devoted to buildup of the squadron, training new pilots and preparing for the full squadron size





delivery expected towards the end of 1977. The first delivery of production aircraft under 'Peace Fox I' to the IAF commenced in 15 December 1977, and incorporated 19 F-15A single seat aircraft and a 2 F-15B two-seaters.

The first opportunity for the F-15, called 'Baz' (Hebrew for Falcon) in the IAF, to prove its value was during March 1978, when tension between Israel and Syria has raised again when the IDF conducted a large scale operation in the area of the Litani River in Southern Lebanon. The IAF constantly patrolled the skies, supporting and covering the ground forces, but no contact was made between Syrian and Israeli aircraft. The next occurrence was during June 1979, when Syrian aircraft interrupted IAF strikes against PLO terrorists in Lebanon. On June 27th, the F-15's first aerial victory was achieved by Major Moshe Melnik, shooting down a MiG-21 with the new RAFAEL Python-3 missile. Three more MiG-21s were shot down by Melnik formation members, crowning the F-15 as the new king of the Skies.

Being the most advanced fighter in the IAF arsenal, the F-15s of the first and second Eagle squadrons took part in every major military operation conducted by the IDF/AF. Escorting the F-16s attacking the Iraqi nuclear reactor in 1981, mopping the Syrian air force from the sky during the 1982 Lebanon campaign and striking PLO terrorist bases 1,300 miles away at Tunisia in 1985,

the F-15s became the distinctive leading aircraft of the IAF. Both squadrons' combat record is detailed in separate chapters.

Follow-up contracts

The second batch of F-15s was accepted in 1981 and 1982 under the 'Peace Fox II' (PF II) program, and included nine F-15C and six F-15D airframes. These aircraft formed the basis for the Second 'Baz' squadron, but the beginning of the 1982 'Operation Peace for the Galilee' deferred the official opening of the squadron and the aircraft and pilots fought the war as part of their parent unit, the First Eagle squadron.

During 1984 and 1985, the IAF incorporated another nine F-15C and two F-15D aircraft under PF III, with most airframes bound to equip the second 'Baz' squadron up to full complement of 25 aircraft plus an attrition replacement aircraft for the first Eagle squadron. It should be mentioned that even

Top left: Captain Alex Gan, a member of the second IAF team to train at Luke AFB, shortly after landing.

Photo: Alex Gan collection

Top right: Prime Minister Yitzhak Rabin and IDF Chief of the General Staff Lieutenant-General Mordechai (Motta) Gur receiving explanations on the cockpit.

Photo: 'Knights of the Twin Tail' squadron

Below left: Guy Golan drinking champagne after his F-15 solo flight at Luke AFB.

Photo: 'Knights of the Twin Tail' squadron

Below right: IAF pilots of the second F-15 conversion training at Luke AFB (left to right): Avner Nawwe, Ram Kuller, Alex Gan, Guy Golan and Yoram Peled.

Photo: 'Knights of the Twin Tail' squadron





On December 12, 1976, two days after the arrival of the first three aircraft, the squadron CO, Lieut.-Col. Eitan Ben-Eliyahu performed the F-15 maiden flight in Israeli skies. Last preparations in the cockpit are shown above (note improvised ladder). In center photos, aircraft no.622 departing the hardened shelter and ready for take-off and below, after landing. Noteworthy is the missing squadron badge.

Photos: Ra'anan Weiss collection





Left: The first ten IAF pilots to have contacted conversion training in the USA. Kneeling (from left to right): Maj. Joel Feldschuh, Maj. Benjamin Zin (Zinker), Lieut.-Col. Eitan Ben-Eliyahu, Major Moshe Melnik and Capt. Saul Simon. Standing (from left to right): Lieut. Ram Kuller, Capt. Avner Naveh, Capt. Yoram Peled, Lieut. Alex Gan and Lieut. Guy Golan. These pilots are credited for 24 shot-down Syrian Air Force MiGs.

Photo: Tel-Nof AFB archive

Central photos: The first two F-15B (76-1524 and 76-1525) that arrived to Tel-Nof AFB on December 15th, 1977, were awarded IAF tail numbers 704 and 708 respectively. After 'Operation Peace for the Galilee' (June 1982) both aircraft were converted to photo-reconnaissance missions, becoming numbers 404 and 408. Prefix '4' was applied to other IAF photo-reconnaissance aircraft. Capt. Avner Naveh and Lieut. Alex Gan are shown in the right photo greeting the USAF pilots.

Photo: Tel-Nof AFB archive



Below: Capt. Yoram Peled about to exit the cockpit of F-15B no.708 on January 31, 1978, when the flight-line was established. For several years, until the arrival of F-15Ds, F-15B numbers 704 and 708 were the only two-seaters in service.

Photo: Tel-Nof AFB archive

though the US government had committed itself to maintain Israel's qualitative advantage over its neighboring countries armed forces, it actually kept a strict balance of power between Israel and other Middle-Eastern American allies such as Saudi-Arabia and Egypt. Whenever Israel was authorized additional F-15s or any other top of the notch military equipment, the aforementioned countries were supplied with similar or identical systems

(advanced F-16 models and M1A1 Abrams MBTs for Egypt, F-15s and AWACS aircraft due to Saudi-Arabia), with Israel's inventory not permitted to exceed that of its neighbors'.

Further attrition replacement aircraft, all F-15Ds, entered service during 1991 under PF IV followed in 1992 by PF V aircraft comprising nine F-15A and five F-15B aircraft sold to Israel at "bargain price" as a recompense for its restraint policy during the





Photos on this page: On December 22, 1977, six days after the first two-seaters arrived, IDF Chief of the General Staff Lieutenant-General Mordechai (Motta) Gur visited the squadron and was given a demonstration flight. Lieut.-Gen. Gur is assisted by senior deputy CO Major Moshe Melnik in fastening the g-suit (note light complexion of his 'red' paratroopers boots) and welcomed in the cockpit by the CO, Lieut.-Col. Eitan Ben-Eliyahu. Center photo depicts the aircraft departing its hardened shelter. Noteworthy is the faded USAF marking between the IAF insignia and the intake. A group photo was taken after the flight with the associated ground personnel.

Photos: Ra'anana Weiss collection





Left: Contrary to other aircraft in which their numbers are applied to their vertical tailplanes and front landing gear door, USAF no.1508 (76-1508) was granted to this aircraft with IAF no.663. The number 2500 represents the flight hours achieved by the IAF F-15s by June 8, 1978. Major Moshe Melnik that flew this specific sortie was credited one year later with the first MiG kill by a F-15, with this aircraft!

Photo: Moshe Melnik collection

Below: Three 'Baz' aircraft during a 1981 farewell flight over the Sinai Peninsula before its return to Egypt as part of the peace treaty with Israel.

Photo: Moshe Melnik collection

Bottom: F-15A numbers 644 and 684 in low flight over the Jezreel Valley in northern Israel. Mount Tabor is at the left. 'Baz' no.684 was written-off after an accident in August 15, 1988.

Photo: Amir Chodorov via Moshe Melnik

1991 Gulf war. Most of the single seat aircraft of the PF V program found their way to open storage, while the two-seaters entered squadron service after thoroughly overhauled by the IAF central maintenance unit.

Creating better Eagles

During the 1980's the IAF accomplished a quantum leap with its equipment. As part of the yet to be terminated Lavi Project and the advanced F-16C and D variants that followed, numerous indigenous avionics and electronic warfare systems entered operational service. But the F-15, advanced as it may be, stayed behind the rest of the IAF arsenal. The only existing modernization program for the F-15 was the Multi Stage Improvement Program (MSIP), conducted by the USAF for its Eagles during the mid 1980's. Although this project was considered by the IAF, it was eventually not adapted due to lack of funds. Throughout the early 1990's, when the next generation of IAF Eagles commenced



Right: F-15A no.620 during its first unveiling to the public.

Photo: IAF Magazine



Below: F-15A no.673 in a flight demonstration during IAF day in July 1979.

Photo: IAF Magazine



Below: F-15A no.692 in mid 1981 adorned with the name 'Galaxy'. The smiling black & white eagle motif on the inner vertical stabilizers was applied few months later. The kill marking represents a Syrian Air Force MiG-21 shot down by Israel 'Relik' Shafir in Lebanon on September 24, 1979, with an AIM-9H Sidewinder.

Photo: IAF Magazine

to manifest itself as the F-15I Ra'am program, a substantial upgrade program for the 'Baz' was also considered for implementation. The IAF had a vast assortment of modern avionics and armament to offer for its venerable Eagles. From Multi Function Displays (MFDs) and Helmet Mounted Sight within the cockpit, followed by Global Positioning System (GPS) navigation and advanced data-link systems and air to air missiles such as RAFAEL Python 4 and the Hughes AIM-120 AMRAAM.

All the above, coupled with new main and fire control computers formed the 'Improved Baz' program, launched during 1995. By 2004, all remaining airframes were upgraded to latest standard, fortifying the 'Baz' forehead position within the ranks of the IAF.

Missions and roles of the Baz

Upon its arrival, the F-15's first and primary mission was establishing air-superiority and keeping the Israeli sky clear from enemy aircraft. Until the introduction of the MiG-29 to the Middle Eastern arena, the F-15 had and still has no match in maneuverability, radar capabilities and survivability. Only the MiG-25 offered some competition in the area of maximum speed and altitude, but even this stated advantage was proved negligible when Israeli F-15s achieved the world's first kill of a MiG-25, diminishing the halo surrounding the Soviet interceptor.

However, versatility is a fundamental principle within the IAF, striving to maximize operational use from every aircraft type. Therefore, when Conformal Fuel Tanks (CFTs) were delivered on January 1981, F-15s gained some secondary roles such as long range strike and also reconnaissance capabilities. While keeping the edge in Air Combat Maneuvering (ACM), Israeli F-15 pilots constantly





Above: Two new F-15A aircraft after landing at Tel-Nof on February 2nd, 1978. USAF numbers 76-1505 and 76-1506 were allocated IAF numbers 654 and 658, respectively.

Photo: Tel-Nof AFB archive



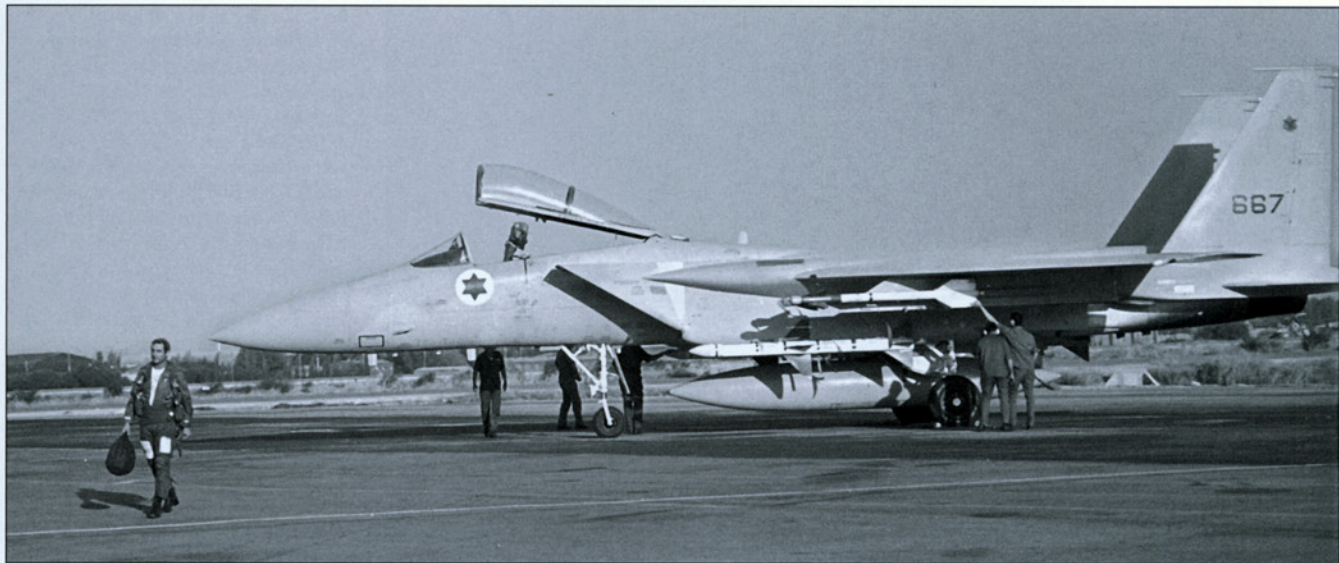
Left: F-15A number 654 weeks after its arrival to 'Knights of the Twin Tail' squadron.

Photo: Ra'anana Weiss collection

Below: A late 1977 photo of F-15A number 646 taxiing for take-off.

Photo: Tel-Nof AFB archive





Above: Squadron CO Lieut.-Col. Eitan Ben-Eliyahu walking away from F-15A number no.667 after an escorting sortie of newly arrived aircraft on November 5th, 1978. USAF numbers 76-1522 and 76-1523 were allocated IAF numbers 696 and 698, respectively.

Photo: Ra'anana Weiss collection

Below: F-15B no.708 taking-off configured for an air-superiority configuration. The payload consist of four AIM-7 Sparrow, four AIM-9H Sidewinder air-to-air missiles and a 600 US gallon (2,270 liter) external fuel tank.

Photo: Ra'anana Weiss collection

enhance their bombing skills. During 1983, the F-15s, precision strike capabilities were adapted. Between the late 70's and the end of 1982 aerial campaign over Lebanon, the operation of GBU-15 EO guided bombs were the task of F-4E 'Kurnass' squadrons. When the F-15s were qualified to deliver this weapon, numerous former Kurnass Weapon System Officer's (WSO), were integrated into the second 'Baz' squadron to become F-15 WSOs.

Baz external properties

All Israeli F-15s have harmonic balancers at the left vertical tail tip replacing the USAF ALQ-128 pod, except for the first four F-15s and PF V airframes. Israeli F-15s are unique with their ejection seat system. Unlike the USAF, the IAF opted for the IC-

7 ejection seat in its aircraft, probably to minimize airframe cost. Following a fatal accident in 1991 involving a malfunction of the ejection system, the seats were replaced with the McDonnell-Douglas ACES II ejection seats. The process was completed by the end of 1993. During the procedure it was discovered that the ACES II canopy breaker was located exactly beneath a sensor related to the Helmet Mounted Sight system. Therefore, the sensor was temporarily removed and was re-installed in a new position close to the canopy rail. Finally, IAF F-15s were not equipped with ALQ-135 antennas mounted in USAF aircraft under the nose section and behind the nose wheel well.

PF I aircraft included two types of airframes. The first four IAF F-15s were pre-production aircraft





Left: The IAF F-15's commenced air refueling training with Boeing 707 'Re'em' soon after becoming operational. 'Knights of the Twin Tail' squadron F-15B no.708 'Chariot of fire' being refueled in late 1982. The kill marking represents a Syrian Air Force MiG-23 shot down over the Bekaa Valley in Lebanon on June 10th, 1982. In 1983 this F-15B, with other aircraft, was converted to include photo-reconnaissance capabilities. This was achieved by the removal of the M61 cannon system and by sealing the muzzle aperture. The cameras and associated equipment were installed in this volume.

Photo: Ofer Zidon collection

modified in the USA for operational use. These aircraft comprised early small airbrake and pods at the vertical tails edges. The remainder of PF I aircraft are production A/B models from blocks 16-18.

PF II aircraft are C/D models from blocks 27-29, which formed the basis for the second 'Baz' squadron. All aircraft from this contract have embedded CFT capability.

It should be noted that PF I aircraft were not adapted for CFT when delivered. This capability was added only in May 1985. In addition, PF I aircraft did not have chaff/flare dispensers until January 1986, when this defensive system was installed.

PF III aircraft are C/D models of production blocks 35-36. The only unique external feature of these aircraft incorporate round domes on both ends of their tail booms, similar in appearance to the ALQ-135 dome mounted on later variants of USAF F-15C tail booms. All aircraft from this contract were manufactured with CFT capability.

PF IV aircraft were attrition replacement aircraft ordered during 1989. Since the F-15C/D production line was no longer active, F-15E production airframes were modified to D standard. The airframes are similar in appearance to those of PF III and facilitate CFTs. The aircraft were delivered without 'turkey



feathers' on their engine nozzles, but this feature was adapted later. When delivered, these aircraft had an empty ALQ-128 pod at their port vertical tail that was replaced with a harmonic balancer.

PF V aircraft were surplus USAF A/B models. The six F-15B airframes of blocks 7-9 saw a major overhaul before entering IAF service. The remaining none CFT capable F-15A airframes were overhauled and stored as attrition alternate aircraft. Only one

Above: 'Spearhead' squadron F-15C no.832 being refueled in the mid 80's by a Boeing 707 'Re'em'.

Photo: IAF Magazine



Below: RAFAEL Armament Development Authority Python 3 air-to-air missiles are credited for 27 Syrian Air Force MiG's shot down over Lebanon. This achievement was obtained from 37 launches resulting in a high success rate of 73%. The Python 3 entered operational service with the IAF in 1977.

Photo: IAF Magazine



Left: F-15A no.663 armed with RAFAEL Python 3 air-to-air missiles, during a base exercise simulating a chemical warfare attack. Noteworthy is the special gear of the ground personnel.

Photo: Dr. Ran Yahalom collection



Above: F-15A no.693 taxiing for take-off armed with Python 3 missiles and 3 external fuel tanks.

Photo: Dr. Ran Yahalom collection

Right: 'Spearhead' squadron F-15C no.828 awaiting runway clearance, positioned after a 'Bat' squadron F-4E 'Kurnass' no.101. Photo is from the mid 80's.

Photo: IAF Magazine



Below: F-15A no.654 'Hurricane' taking-off for a training sortie in the mid 80's. Also shown are 'The One' squadron F-4E 'Kurnass' no.241 and Sikorsky CH-53 'Yas'ur' no.665.

Photo: IAF Magazine





aircraft (No. 317 named 'Lavie') saw actual service for a short period.

Baz paint scheme and numbering system

All Israeli F-15s were delivered carrying the standard USAF paint scheme FS 36375 Light ghost grey and FS 36320 Dark ghost grey. A camouflage pattern made of Light and Dark ghost grey combined with sand was tested during mid 1980's, but this scheme was never adopted.

The IAF has allocated a certain set of number series for each F-15 type of each contract, as follows:

- PF I single seat F-15A aircraft were numbered

using the 6XX range while the F-15B featured the 7XX range, later changed to 4XX range, probably due to technical modifications.

- PF II single seat F-15C aircraft incorporated the 8XX range while the F-15Ds received the 7XX range, later changed to 9XX range, again, probably due to upgrades, afterwards renumbered to the 4XX range.

- PF III F-15Cs aircraft were numbered 5XX while the F-15Ds were numbered in 2XX range.

- PF IV F-15Ds featured the 7XX range.

- PF V single seat aircraft were identified with the 3XX range while the F-15Bs were seen with 1XX numbers.

Above: Aircraft no.695 returning from a training sortie still without enemy aircraft kill marking. This F-15A was awarded the name 'The Star' after shooting down 4 SAF MiG's in 'Operation Peace for the Galilee' of 1982.

Photo: Tel-Nof AFB archive



Above left & right: The first two F-15B aircraft after 'Operation Peace for the Galilee' of June 1982. On the left is no.704 'As an arrow from the bow' and no.708 'Chariots of fire' is to the right.

Photo: Ra'anan Weiss collection



Left: Aircraft no.678 'The shooter' after 'Operation Peace for the Galilee', adorned with two MiG-23 kill marking, shot-down by Yoram Peled in June 11, 1982.

Photo: Ra'anan Weiss collection



Above: Most of the aircrew that participated in 'Operation Peace for the Galilee', appear in this group photograph:

1. Noam Canaani; 2. Avi Maor;
3. Reuven Solan; 4. Joel Feldschuh
5. Ran Granot; 6. Saul Schwartz
7. Yoram Peled; 8. Saul Simon
9. Yoav Stern; 10. Oren Hampel
11. Arnon Sherter; 12. Dudi Lippin
13. Uzi S.; 14. Shlomo Egozy
15. Tvi Liphshitz; 16. Tamir S.
17. Boaz Rozenman; 18. Eitan Remler
19. Dadi Rosenthal; 20. Alex Gan
21. Udi Zohar; 22. Rani Eisenberg
23. Dani Levitt; 24. Micki Lev
25. Avner Naveh; 26. Ofer Lapidot
27. Eitan Ben-Eliyahu; 28. Shlomi
29. Ronen Shapira; 30. Ziv Nediivi
31. Moshe Melnik; 32. Gil Rapaport
33. Elitzur L.; 34. David Yair
35. Michael Cohen.

Photo: Ra'an'an Weiss collection

Below: F-15A no.658 'Typhoon' returning from a training sortie. Note two kill marking representing two Syrian MiG-23's shot down on June 7, 1982 by Ofer Lapidot and on June 9, 1982 by Gil Rapaport.

Photo: Tel-Nof AFB archive



Squadron insignia

Both the F-15 units had their squadron emblems applied to the aircraft's vertical tails from the beginning of their service. But IAF tradition and the large surfaces of the vertical tails inner side called for more art and symbols to be applied. Not later than 1985 The first IAF F-15 Eagle squadron, 'Knights of the Twin Tail', added a black banner with a white eagle head superimposed over it, inspired by markings of the USAF 33rd Fighter Wing. The additional art with aircraft of the second 'Baz' unit, the 'Spearhead Squadron' was more abstract, comprising of two large red shafts applied on each vertical tail's inner side. This motif was adapted from the squadron badge and was applied during late 1990.

One external feature applied to both units was individual names for the aircraft. This practice was common some IAF squadrons. The idea to name each F-15 was suggested by Brig. Gen. Moshe Melnik during 1981 when he was commanding the 'Knights of the Twin Tail' squadron. Single seat aircraft names were single word names while two-seaters were given names comprising two words (except for aircraft #832). These designations were applied to the F-15's of both squadrons.

Baz armament

Being an interceptor, typical payloads for the 'Baz' comprise of various combinations of air-to-air missiles, but occasional needs and specific squadron qualifications resulted in some unique armament configurations including ordnance, both guided and unguided. While this contradicted the slogan 'Not a Pound for Air to Ground', it settled perfectly with the IAF principle of versatility.

Air-to-air configurations

Basic configuration of the 'Baz' is to be armed with the standard payload of four AIM-9J Sidewinder and four AIM-7E2/F Sparrow and up to three external fuel tanks. During 1978 the 'Baz' was qualified to carry the Israeli manufactured RAFAEL Python-3, the successor of the Shafrir-2. The Python-3 required special adaptors due to the missile's wide tail fin span as evident in accompanying pictures. This adaptor was nicknamed 'magrepha' (Hebrew for rake). Due to technical reasons it wasn't until December 1981 that a mixed configuration of Sidewinders and Pythons was possible. Previously, the F-15 could carry either type of the heat seeking missiles, but not both types at the same time. Other missiles carried by the 'Baz' include the AIM-9L and



the AIM-7F/M. The next generation of the Python family, the RAFAEL Python 4, was introduced to the 'Baz' during 1994, and today every mix of short range heat seeking IR missiles and active radar BVR medium range missiles can be carried.

Aircraft of PF IV were initially adapted only to Sidewinders and Sparrows, but once modified to 'Improved Baz' standard during the late 1990's, all of the above AAM types became operational. The AIM-120 AMRAAM, delivered to the IAF with the F-15I Ra'am, is also now a standard issue of the 'Improved Baz'.

Air-to-ground configurations and ECM pods

During 1983 few two-seaters were modified to carry the GBU-15 and its guidance pod. This included internal modification of the pylons and additional TV screen and panels in the WSO's cockpit. From June 1992 some F-15Ds were modified to carry RAFAEL's Popeye standoff air-

to-surface missile. Until August 1997 The Popeye could only be stationed on the right wing station (no. 8) and as of that date, a payload of two missiles, one under each wing, became possible. In this configuration the Popeye's guidance pod is positioned on the centerline station (no. 5). LGB's are not operational with IAF F-15. Various types of iron bombs are standard ordnance of IAF F-15's and were also released by 'Baz' aircraft during the 1985 mission against PLO terrorist targets in Tunis and in operation 'Grapes of Wrath' of 1996.

The US ALQ-119 and ALQ-131 ECM pods were tailored to the 'Baz' are always positioned on station no. 5. Another type of ECM pod is the IAI ELTA manufactured EL/L-8212/22. This pod is positioned on station no. 3 (front left CFT).

Above: One of the main missions defined for the newly formed 'Spearhead' squadron was to achieve operational capability with stand-off air-to-ground EO guided glide weapons. The available option for the 80's was the Rockwell International GBU-15. Shown are two F-15D's no.965 and no.280 with wingless training GBU-15 units under their centerline store stations. Operational GBU-15's were the main weapon system in the IAF 1985 attack in Tunis.

Photo: Ra'anana Weiss collection

Below: A formation of three F-15A's above the Temple Mount in Jerusalem during the mid 80's. On August 15, 1988, aircraft no.684 'The vampire', collided with aircraft no.672 'Tornado' during dissimilar air-combat training. Squadron CO Lt.-Col. Ram Kuller and Major Ehud Falk were killed.

Photo: IAF Magazine





Above: F-15A no.693 'Lightning flash' before take-off to a CAP sortie. The payload consists four Raytheon AIM-7 Sparrow, four RAFAEL Python 3 air-to-air missiles and three external fuel tanks.

Photo: Ra'anana Weiss collection

Right: 'Spearhead' squadron F-15B no.111 adorns the name of its squadron. This former USAF aircraft was delivered to Israel after the Gulf War. Note Israel's 50th anniversary tail marking and the ALQ-131 EW pod.

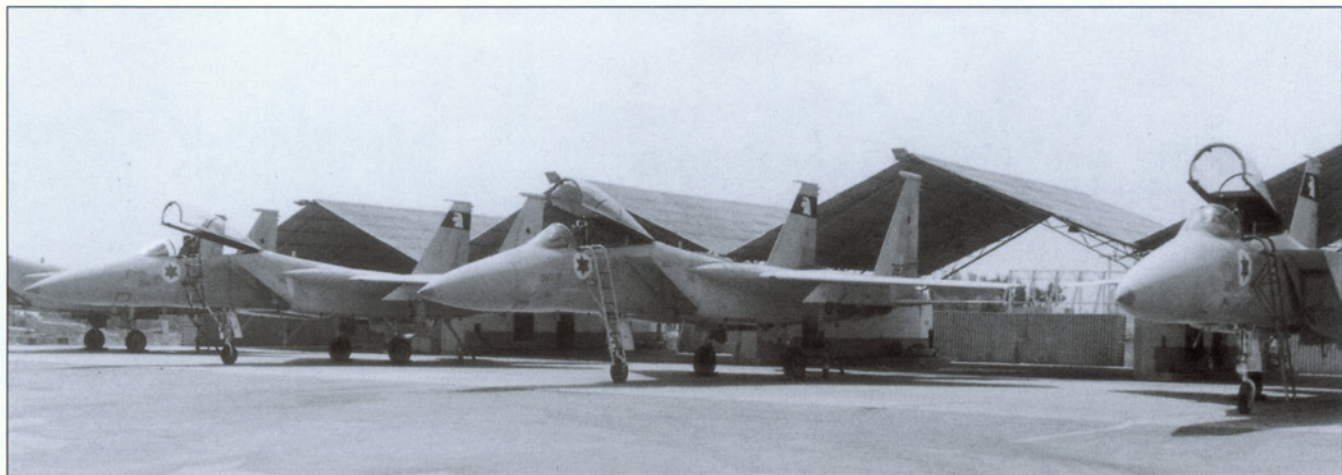
Photo: Ra'anana Weiss collection



Below: F-15C no.840 'Commando' and F-15D no.957 'Sky-blazer' were the two most representative aircraft of the 'Spearhead' squadron towards the end of the 80's. For unknown reasons no.840 was applied with 6 kill markings even though the actual number of aircraft shot-down was 3.5. Aircraft no.957 was granted 5 'downed' aircraft while the correct number was 4 1/2 SAF MiGs. Half a credit is granted when a target is simultaneously hit from two separate sources.

Photo: IAF Magazine





Photos on this page: In the early 1990s, the IAF accepted USAF surplus early production blocks F-15A/B aircraft. Their overall condition was inadequate, yet most of the aircraft were awarded individual names. The F-15A types were serialized 3XX, while the two-seaters 1XX. Most of the F-15As were withdrawn from service after a year or two and were stored at Ovdia AFB. Only tail no.317 'Lavie' (young lion) was operational until May 2001. Some of the aircraft were cannibalized for spare parts. Shown here are: no.312 'Bareket' (Emerald), no.332 'Atlas', no.301 'Ovda', no.387 and no.394 'Viper'. The F-15Bs did enter service to be eventually upgraded to Improved 'Baz'.

Photos: Dr. Ran Yahalom and Ra'anana Weiss collections





Above: Aircraft no.316 'Vulture' as displayed at Ovda AFB in the end of 2005.

Photo: Ra'anan Weiss collection

Right: Aircraft no.301 taxiing after landing at Tel-Nof AFB. The paint scheme is non-standard. The outer sections of the vertical tailplane are adorned with Ovda AFB maintenance squadron, while identification marks of both the operational squadrons of the base, covers the inner sections.

Photos: Dr. Ran Yahalom collection



Lower Right: In the mid 1990s it was decided to paint few aircraft with exceptionally large national insignia, for long distance identification purposes during dissimilar air-combat training. The surplus aircraft stationed at Tel-Nof AFB served as proof-of-concept for these markings.

Photo: Tel-Nof AFB archive



Below: 'Spearhead' squadron aircraft no.317 - 'Lavie' was part of the 'Peace Fox V' contract and the only aircraft to serve almost 10 years, shown below landing at Ovda AFB in 1998.

Photo: Ra'anan Weiss collection





Above and bottom photos: From the mid 1990s the IAF began to deploy to bases in Turkey. Shown are 'Knights of the twin tale' no.455 and no.701 with F-16Ds of the 'First fighter' squadron.

Photo: IAF Magazine

Left: View from the cockpit of an IAF F-15 of a Luftwaffe MiG-29, during joint training in Sardinia, September 2003. Five 'Baz' aircraft participated (706, 715, 733, 970 and 979) together with one F-15I 'Thunder'.

Photo: Ra'anana Weiss collection





In recent years IAF aircraft deploy to Nellis AFB Nevada for 'Red Flag', realistic combat training exercises with USAF units and other allied air arms. Photos on this page are from the 2002 and 2004 deployments.

Photos: Ra'anana Weiss collection





Photos in this page and opposite top photos: F-15 no.714 'Iron Eagle' (though the Hebrew word 'Nesher' relates to Vulture) of the 'Peace Fox V' contract was converted to include various systems and instruments. The aircraft operates at the IAF Experimental Flight Center (Manat). Noteworthy are the camera ports.

Photos: Ra'anana Weiss

Opposite page - middle picture: RAFAEL 'Black Sparrow' was developed to simulate a short-range ballistic missile (SCUD-B) attack and serves as a target during tests of Israel's TMD (Theater Missile Defense) system, the Israel Aircraft Industries Arrow system. F-15D no.957 is taking-off with the 1,275kg. 'Black Sparrow'.

Photos: RAFAEL via Shlomo Aloni





Right: 'Spearhead' squadron two-seaters along with 'Hammers' squadron F-15Is hold IAF operational carrying capability of the impressive RAFAEL 'Popeye' long-range air-to-surface missile. F-15B no.110 'Spearhead' (USAF no.73-0110) was a surplus aircraft acquired from USAF, landing after a training sortie. Noteworthy are the two wingless missiles under the wing pylons and the communication pod positioned on the central store station. The aircraft was upgraded to 'Improved Baz' standard.

Photo: Ra'anana Weiss



The most emotional overseas deployment of the IAF F-15 force occurred on April 2004 in Poland. The aircraft deployed to an air-show and conducted a fly-over the concentration and death camps of Auschwitz-Birkenau (photo on left), as a salute to the six million Jews murdered in the Holocaust. Pilot of the leading aircraft was Brig.-Gen. Amir Eshel, then Commander of Tel-Nof AFB and since 2005, IAF's Chief of the IAF Staff Directorate. The 180 officers and non-commissioned officers delegation on site were led by Brig.-Gen. Ido Nechushtan, then Head of the IAF Air Directorate. Below and next page center photos depict the aircraft flight over the camps as seen by the aircrews. Top photo on the following page presents the IAF aircrews that conducted the flights to Poland and back and participated in the fly-over the camps and the demonstration flights at Radom-Sadkow Polish Air Force base.

From left to right:
Col. Avi Ma'or, Col. Avi Levkovitch, Capt. Shir La'or, Col.(res.) Shimshon Rozen, Col. Shai Gilad, Brig.-Gen. Amir Eshel, representative of the Polish Air Force, Capt. Shay Rahamim and Lt.-Col. Yaron Melech
Photos: Ra'anana Weiss collection





The Knights of the Twin Tail Squadron



The majority of IAF combat squadrons can trace their heritage back to Israel's War of Independence in 1948, an epoch during which many IDF/AF legacies have been founded. Only few new front line squadrons were established after 1948, typically when aircraft of great significance entered service, as the Meteor with 'The First Jet' squadron or the F-4E with 'The One' squadron. The first Eagle squadron, later known as the 'Knights of the Twin Tail', was an example in which a brand new unit established a new era for the IAF. The formation order of the new squadron was issued on 25 February 1976. The founding team considered every detail, from squadron combat doctrines to the color of the frame heads.

On July 16 1976, the establishment team, led by Lt. Col. Eitan Ben-Eliyahu, arrived at Luke AFB, Arizona to conduct comprehensive training with the Eagle. The IAF pilots paid special attention to every lecture and practice they could employ with the squadron. When the first Israeli Eagle aircrews were qualified, they returned to Tel-Nof AFB to conduct final adjustments to the newly formed unit while waiting for the first aircraft to arrive. The squadron received its first three aircraft on December 12, 1976 (the 4th arriving days later) and immediately began training against leading IAF aircraft. The new F-15, name 'Baz' (Hebrew for falcon and pronounced buzz) by the IAF, rapidly inherited the place of the Mirage and Phantom as the IAF prime interceptor. The only potential rival for the 'Baz', the General Dynamics F-16, was still few years away from operational service with the USAF. The IAF F-15 pilots would govern the Middle Eastern skies exclusively for four years to be joined by the F-16A/B 'Netz' (Hebrew for Hawk) fighters in 1980.



Above: 'Knights of the Twin Tail' F-15As during the early operational period of the squadron. Aircraft no.673 approaching the runway while aircraft no.678 is taking-off with a SUU-20 Practice Bomb Adaptor under its center line store station. F-15A no.673 is adorned with a kill mark that was painted on July 29th, 1981, when the 2nd SAF MiG-25 (worldwide) was shot-down with a AIM-7 Sparrow air-to-air missile by Saul Simon. Two kill marks appear on Aircraft no.678 to represent SAF MiG-23s shot-down with Sparrow missiles by Yoram Peled on June 11, 1982. Far left: 'Knights of the Twin Tail' F-15A no.708 taking-off to training sortie.

Photos: IDF Spokesperson via Ofer Zidon

Left: In one of the first aerial photos of an IAF F-15A, aircraft no.644 is seen in a vertical climb during the beginning of 1981.

Photo: Amir Chodorov via Moshe Melnik





Above: Tel-Nof AFB CO Brig.-Gen. Ran Ronen (Pekker) holding a bottle of champagne after his first solo flight on an F-15A on December 19, 1977. IAF officers are qualified to pilot all the aircraft types that operate from the base they command.

Photo: 'Knights of the Twin Tail' squadron



Top right: 'Knights of the Twin Tail' squadron aircrews photographed towards the end of 1978. Standing from left to right are: Yair Rachmilevitch, Saul Schwartz, Yoram Peled, Moshe Melnik, Israel (Relik) Shafir and Guy Golan. Kneeling from left to right are: Ram Kuller, Dadi Rosenthal, Eitan Ben-Eliyahu, Yoav Stern, Alex Gan and Eitan Barzilai.

Photo: Col. (res.) Alex Gan

Below: F-15A no.622 departing the hardened shelter area of the squadron to commence a training sortie during August 1977.

Photo: Ra'anana Weiss collection

Setting the stage

After being expelled from the Kingdom of Jordan in 1970, the Palestinian terror organizations, led by the PLO (Palestinian Liberation Organization), have transformed the area of southern Lebanon into their new operational area. The mountainous terrain and the proximity to the Israeli border were thoroughly exploited by the terrorists to launch a prolonged war against the State of Israel. Each act of aggression inside Israel or against Jewish objectives overseas prompted a military response of the IDF in an everlasting vicious circle.

On March 11, 1978, a squad of PLO terrorists took control of an Israeli bus on the coastal highway near Kibbutz Ma'agan Michael. During the subsequent takeover operation conducted by the IDF, the eight terrorists killed 36 of the civilian passengers before eliminated by IDF troops. Following this murderous attack, on the night of the 14th, IDF armored columns crossed the border into southern Lebanon in what would be known as the 'Litani River Operation'. The IAF operated closely with the IDF ground forces, suppressing the terrorists, fire and conducting pre-emptive strikes. The brand new Eagles kept a watchful eye over the attacking aircraft and ground forces, hoping to score their first kill, but

to no avail. During 1976 Syria and Israel, through US mediation, agreed over an artificial borderline, called the red line, that would define Lebanon into Israeli and Syrian influence zones. Since the operation was held at the heart of the Israeli zone, the Syrians refrained from intervening. Therefore, IAF and Syrian fighters didn't meet this time over the southern Lebanese skies. The following period saw a gradual, however constant rising of tension between all of the participants involved in Lebanese theater. The IDF carried on its ongoing battle against the PLO, while increasing the Israeli support for the native Christian militias against Syria and the Palestinians. Syria, for its own part, supported the Muslim factions and PLO terrorists but failed to seize control over them. Syria also had to face growing internal opposition and criticism from other arab nations for their fighting against arab brothers, which weakened its posture in Lebanon, adding to the instability of the situation. Syria also had to counter the forming alliance between the Israel and the Christian militias. From now on, Syrian MiGs began appearing when the Israeli A-4s and F-4s were attacking. The struggle over air dominance over the sky of Lebanon was becoming tangible by the minute, but not a single shot was yet fired.





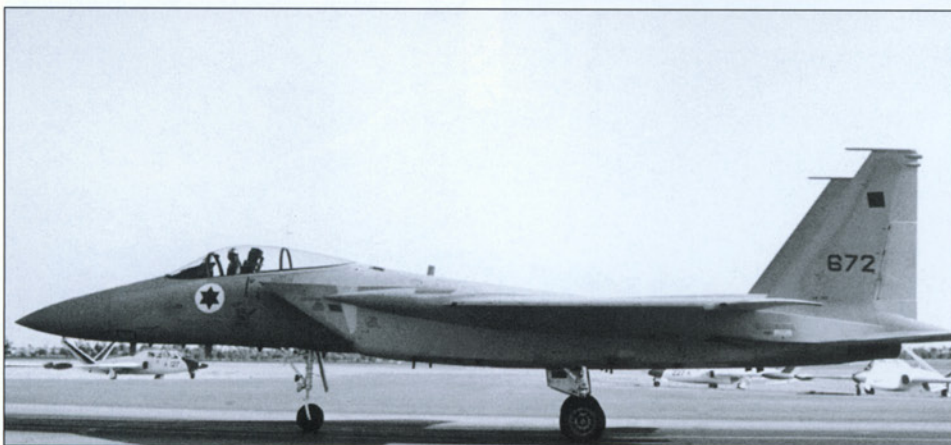
Above: F-15A no.622 in the course of 1979. Noteworthy is the smaller dorsal airbrake typical of the four Category II full scale development (FSD) F-15As that entered service with the IAF. Of note are the specially developed Python 3 air-to-air missile adaptors attached to the store pylon. The RAFAEL Python 3 missile entered IAF service in 1978. The wing span of 0.8m prevented its installation on the AIM-9 Sidewinder missile adaptors. The provisional solution shown allowed IAF F-15s to be armed with the Python 3 missiles, but prevented the use of an external fuel tank.

Photo: Ofer Zidon collection



Upper left: F-15A no.681 as photographed towards the end of 1981. The name 'Romach' (Hebrew for spear) appears on the nose section while its number is still positioned on the center outer section of the vertical tailplane. The white on black 'smiling eagle' motif was not yet painted on the inner planes.

Photo: Ofer Zidon collection



Left: F-15A no.672 during Air Force Day in July 1978. The aircraft was named 'Tornado' in 1981.

Photo: Ofer Zidon collection

Right: Photographed in 1978, F-15A no.676 and no.620 in formation flight over a dense cloud cover. Aircraft no.676 was the first F-15A loss in which Capt. Guy Golan was killed.

Photo: Col. (res.) Alex Gan

Below: F-15A no.684 taking-off to a training sortie. Until 'Operation Peace for the Galilee' of 1982 the tail numbers were painted on the center tail section. Later that year it was instructed to paint the numbers on the base of the vertical tails.

Photo: IAF Magazine

Below right: The USAF style 'smiling eagle' squadron identification motif was added towards the end of 1982.

Photo: Ra'anana Weiss collection



Above and right: These 1981 photographs are of formations over Samaria and Sea of Galilee.

Aircraft no.696 carries a single mark of a SAF MiG-21, shot-down by Ilan Margalit on August 24, 1980. Aircraft no.684 is seen before its aerial victory with Ronen Shapira, against a MiG-23 on June 9, 1982. F-15A no.684 was lost together with no.672 on August 15, 1988 after a collision during dissimilar air-combat training. Lt.-Col. Ram Kuller, the squadron CO, and Maj. Ehud Falk were killed in this tragic accident.

Photos: Amir Chodorov via Moshe Melnik



First kills

On June 27, 1979, 'Groom' (comment: all flight call signs were translated from Hebrew for the ease of reading), a flight of four F-15s and Thames, a mixed flight of two F-15s and two 'First Fighter' squadron Kfir fighters were covering a strike against targets in the region of the cities Sidon and Tyre. The Syrian Air Force (SAF) launched six MiG-21 fighters to intercept the attacking aircraft, but when they identified the F-15s the MiGs disengaged. In an attempt to lure the MiGs back to combat, Israeli controllers ordered the striking aircraft to make additional fake bomb runs and to the F-15s to take a south-western flight path towards the sea. The scheme succeeded and once the MiGs returned to engage, the F-15s were vectored to intercept. With their missiles locked at a range of ten miles, 'Groom 2, 3 and 4' launched a single AIM-7 each, all missing their targets. As the MiGs and the F-15s closed range, 'Groom 2' spotted a pair of MiGs flying three miles away and due to cross its flight path from right and below. The MiGs initiated a turning sequence when the IAF pilot switched to the new Python 3 missile and launched. The missile split the MiG into two and the explosion that followed marked the first world

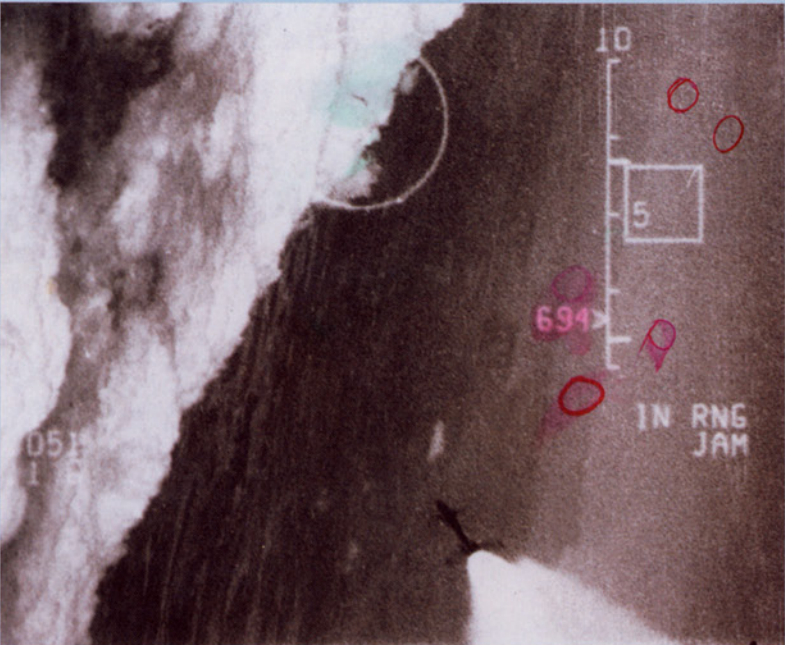
kill for both the F-15 and the Python 3. 'Groom 4' spotted the surviving MiG, locked and fired an AIM-7. Convinced it's a miss, 'Groom 4' fired an AIM-9J when the AIM-7 began tracking and blasted into the MiG closely followed by the Sidewinder. Meanwhile, 'Thames' flight arrived at the scene with 'Thames 1 and 2', the F-15s leading the flight, watching the battle as they closed the range. From a distance of six miles, 'Thames 1' identified two brown MiG-21s flying in a counter parallel course to his left and made a hard break towards them with 'Thames 1' covering. 'Groom 3' was chasing the same MiGs, as they initiated a steep dive to avoid the F-15s. 'Groom 3' fired an AIM-7 at the leading MiG, missed and rolled out of the dive, losing the MiG for few seconds. 'Thames 1' shot a single AIM-9J well within of the missile's firing envelope, scoring that MiG few seconds later. Too close to launch missiles, 'Groom 3' jettisoned its ventral tank and chased the trailing MiG, preparing to use the cannon. After some classic maneuvering, 'Groom 3' fired a 20 mm burst at the MiG from 300 meters, sending it burning to the ground. Another MiG was shot down by 'Thames 4', a Kfir fighter also using the Python 3, scoring the aircraft's first kill.

Formation "Groom"

- 1. Benjamin Zin (Zinker)
- 2. Moshe Melnik - a/c no.663
- 3. Eitan Ben-Eliyahu - a/c no.689
- 4. Joel Feldschuh - a/c no.704

Below right: HUD view of the Python 3 missile launched by Moshe Melnik heading towards its target.

Below left: The citation certificate awarded to Moshe Melnik after the first MiG was shot down on June 27, 1979. The certificate was issued on July 15, 1979 by IAF Commander Maj.-Gen. Amos Lapidot.



Left: Moshe Melnik landing aircraft no.663 at Tel-Nof AFB, after the aerial combat in which the world's first enemy aircraft was shot-down by a F-15. Note the missing AIM-7 Sparrow from the forward right store station and the lack of a Python 3 from the inner missile adaptor. During the same battle, two Python 3 missiles achieved first aerial kills, one by a 'Baz' and the second by an IAI Kfir C2.
Photos in this page: Moshe Melnik collection



Formation "Thames"

1. Yoram Peled - a/c no.672
2. Guy Golan
3. Ben-Amitay - Kfir C2
4. Shay Eshel - Kfir C2 no.874

Above: After a successful day of combat, Moshe Melnik and Guy Golan returning the squadron building and explaining to fellow pilots the events of the day.

Photos: Brig.-Gen. (res.) Moshe Melnik

Formation "Surfboat"

1. Avner Naveh - a/c no.695
2. Dadi Rosenthal - a/c no.676
3. Israel (Relik) Shafir - a/c no.692
4. Eran Blansh

Right: Joyful Israel (Relik) Shafir during a warm welcome at the squadron after downing a SAF MiG-21 on September 24, 1979.

Photo: 'Knights of the Twin Tail' squadron

Below: F-15A no.695 entering its hardened shelter after training sortie in November 1980. The two September 24, 1979 kill marks of Avner Naveh are clearly visible. Six weeks later Yoav Stern added another aerial victory to this aircraft.

Photo: Tel-Nof AFB archive

The F-15 pilots didn't have to wait too long before the next MiG appeared in their sights. On September 24, four F-15s, 'Surfboat' flight, were escorting photo reconnaissance aircraft over the coast line of Lebanon. When reaching the area of Beirut, ground controllers instructed them to turn east where four MiG-21s were heading their direction. Flying at low altitude, 'Surfboat flight', jettisoned their fuel tanks and zoomed up in full burner to meet the MiGs that were flying at 35,000 feet, now 40 miles away. With their radars locked on the MiGs, 'Surfboat

a few seconds it seemed that the Sparrow fired by 'Surfboat 2' wasn't tracking, so a Python 3 was directed at the trailing MiG. However, the AIM-7 corrected its course, detonated near the MiG's cockpit and destroyed it. At this moment 'Surfboat 2' was warned by 'Surfboat 4' that a MiG was trailing 1km away. 'Surfboat 2' broke left while the MiG disengaged and dived followed by 'Surfboat' 3 that maneuvered to chase the MiG, then launched an AIM-9J Sidewinder which guided perfectly and caused a big explosion from which the MiG flew out, suddenly stopping in mid-air. The MiG pilot pulled his ejection seat handle and bailed out. While 'Surfboat 2' was warned to break, 'Surfboat 1' spotted the fourth MiG-21 at a range of 1km meters. Fast to react, the F-15 pilot switched to 'guns option' to hit the 4th MiG with a 20mm barrage. The Syrian pilot bailed out seconds later.

On August 24, 1980, another MiG-21 fell to an AIM-7 fired from an Israeli Eagle patrolling over southern Lebanon (formation 'Sherif'). As each engagement ended decisively in favor of the Israelis it became clear to the SAF that their aircraft and pilots were incapable of confronting the F-15s that ruled the Lebanese skies.

The next engagement took place four months later. On the afternoon of December 31, 1980, IAF aircraft attacked terrorist bases near the city of Nabatiyah. 'Tokyo' flight



1 and 2' each launched a single AIM-7, from 10 miles away. The MiGs split into two pairs, one keeping a head on track in front of the F-15s and the other turned, trying to reach the F-15s from the aft. The first AIM-7 fired by 'Surfboat 1' missed and a single Python 3 that followed destroyed the leading MiG of the front pair. For





Formation "Sherif"

1. Yoram Peled
2. Ilan Margalit - a/c no.696

Left: F-15A no.696 shortly after the successful aerial combat of Ilan Margalit on August 24, 1980. The kill mark is clearly visible on the nose section. The aircraft was named 'Galaxy' in 1982.

Photo: Tel-Nof AFB archive

included two F-15s and two F-4s, watching over them from above the sea in the region of Saida. 'Tokyo' flight simulated an attack profile, flying in an 'Indian Circle' pattern in an attempt to attract the MiGs into an ambush. A pair of MiG-21s was launched against them as usual, appearing from amid the mountains as the F-15s were breaking hard at 18,000ft. over the sea. 'Tokyo 3 and 4', the trailing F-4s were now 1 mile behind the leading F-15s and the MiGs were pulling up between the F-4s and the turning F-15s. 'Tokyo 4' was in an ideal position, the MiGs actually placing themselves in his sight. An air-to-air missile was fired, but missed. 'Tokyo 1' then identified the leading MiG at a range of 2,500 meters in an almost perpendicular flight path and launched a RAFAEL Python-3. Meanwhile, 'Tokyo 2' also locked on the leading MiG just in time to see it explode from the missile fired by 'Tokyo 1'. 'Tokyo 2' switched attention to the trailing MiG, launched two Python 3 missiles; The first did not engage the target while the second exploded on target, but the MiG came out of the explosion intact and turned east, trying to egress the fight. With no Pythons on the missile rails, 'Tokyo 2' fired an AIM-9J at the escaping MiG that was followed an AIM-7 launched by 'Tokyo 1'. The Sidewinder destroyed the target with pilot bailing out in time while the AIM-7 hit the spreading debris.

Vanquishing the MiG-25 'Foxbat,'

The conflict between Israel, the Palestinians and the Syrians was idle for a few weeks, but beneath the still surface the IAF and SAF were constantly checking each other's limits and the next confrontation was only a matter of time. The IAF had full control of southern Lebanon skies de facto, and this reality presented a significant benefit; from along the Lebanese-Syrian long border line, IAF photo-reconnaissance aircraft were able to observe deep into Syrian territory.

Formation "Tokyo"

1. Yoav Stern - a/c no.695
2. Yair Rachmilevich - a/c no.646
3. Granot - F-4E "Bat" sqn.
4. Horvitz - F-4E "Bat" sqn.

Below: F-15A no.695 with a missing AIM-7 Sparrow from the forward right store station. Yoav Stern after the canopy cover was raised.

Photo: Tel-Nof AFB archive





Right: Yoav Stern leaving the cockpit of aircraft no.695. The two previous kill marking are evident. Above: Yoav Stern just after descent from the aircraft and below, detailing the chain of events to the Tel-Nof base commander, Brig.-Gen. Avihu Bin-Nun. To his left is his fellow formation pilot Yair Rachmilevitch, who also shot-down a MiG-21 during the same aerial combat.

Photo: Tel-Nof AFB archive



Formation "Mars"

1. Ramot - RF-4E "Bat" sqn.
2. Benjamin Zin (Zinker) - a/c no.672

Maintaining to preserve this situation, IAF headquarters planned an ambush for the most advanced interceptor the Syrians had in their inventory: the MiG-25. The reason guiding IAF planners was that if the Syrians would see their best aircraft shot down they would be deterred from engaging the Israeli RF-4Es flying along their border.

The weather over northern Israel on 13 February 1981, was not friendly for fliers. The sky was overcast and all training flights were suspended. But over the Lebanese-Syrian border the weather was clear, and MiG activity was detected and carefully monitored Israeli radar screens. At Tel-Nof, under multiple cloud layers, 'Mars' flight, comprised from an RF-4E playing a MiG-bait and a killer F-15A were standing by for the order to scramble when the prey would be identified by the control unit. At 13:02 'Mars' 1, The F-15, was scrambled and directed to some distance behind 'Mars 2', the RF-4E who was already flying a recon mission profile along the Syrian border. After crossing

the border to Lebanon 'Mars 1' was updated by the controller that an aircraft suspected to be a MiG-25 was at 30,000 feet, flying in a south-western course about 70 miles to his north. Seconds later 'Mars 1' detected the MiG at 65 miles while 'Mars 2' turned back to Israel. 'Mars 1' rolled over and performed an inverted Split-S ascended to 20,000ft., locked on the MiG-25 and maintained a head-on course, while given approval to fire by the ground controller. As the range closed rapidly, 'Mars 1' ignored the controller's urging calls to open fire and calmly waited for the right moment. The first AIM-7 was detached from the F-15's launch rail at a range of 23 miles, followed by two additional Sparrows fired at 17 and 12 miles from the MiG-25. With few miles remaining between the aircraft, the F-15 pilot suddenly witnessed a huge explosion followed by a shower of debris with the Foxbat's cockpit section still intact.

The loss of the MiG-25 has shocked the Russians, the manufacturers and operators of the aircraft, especially because the IAF did not resume responsibility, leaving the Syrians and Russians guessing what exactly happened to their frontrunner interceptor. But the deterring effect IAF planners aimed for was not achieved; The Syrians continued to launch their aircraft against the IAF aircraft. During April 1981 Israel and Syria made another step towards an open confrontation. As part of their struggle against the Syrians, Christian militias seized Zahla, the central city in the Beka'a valley. The Syrians considered this a serious hamper for their grasp of Lebanon, and mounted a full scale attack against Christian bases and cities. Desperate, the Christians called their Israeli allies for help, which indeed came in a short notice. On April 28, two Mil-8 helicopters carrying Syrian troops for operations against the Christians, were shot down by F-16s. This



The ambush was successful. Benny Zinker opening a bottle of champagne after shooting down the first MiG-25 in the world. Welcoming him are from left to right: Micky Lev, Eitan Remler, Ilan Margalit and Yoav Stern. Four and a half months later, Saul Simon will shoot-down a second MiG-25.

Photo: 'Knights of the Twin Tail' squadron

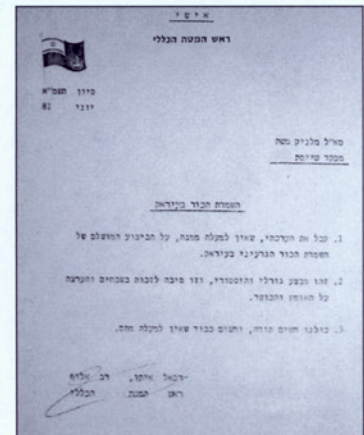
direct Israeli intervention was answered swiftly by the Syrians. A few dozen SAM batteries, a mix of mobile units and permanent sites were placed at the Beka'a valley, posing a direct threat to IAF operations over central and northern Lebanon. Following the success of enemy SAM during the 1973 Yom-Kippur war, the IDF/AF developed and made operational a whole array of weaponry, EW systems

and combat tactics for SEAD (Suppression of Enemy Air Defense) operations. With the Syrian SAM array now hampering IAF actions over Lebanon, it seemed that the next round in the aircraft-SAM conflict was close at hand. But developing circumstances in a different theater would dictate that the IAF plans to strike the Syrian SAM network would be postponed.

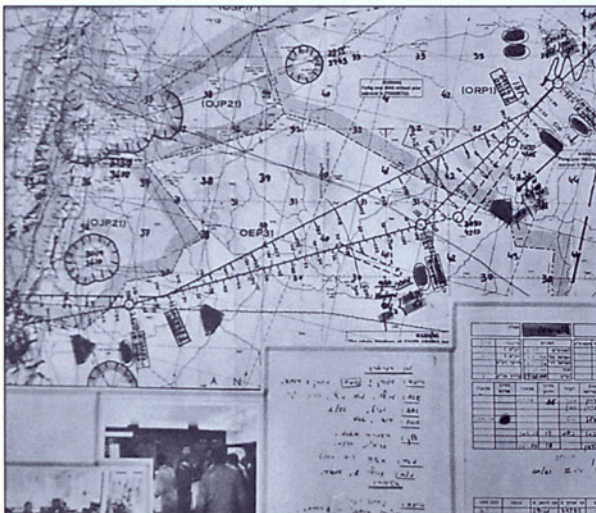
Operation 'Opera,

While news from the northern front made daily headlines in Israel, another crisis was evolving 1,000km away. In the eastern front, the State of Israel was facing steadily developing problems with Iraq. Under the tyrant leadership of Saddam Hussein, Iraqi and foreign scientists were constructing a nuclear reactor supplied to Iraq by the French government. While Iraqi public statements were pleading the reactor's purpose was strictly civilian, Hussein's statements and the information gathered by Israeli intelligence agencies left no doubt about its true nature: achieving nuclear weapon capability. The IDF has been planning to strike and destroy the reactor for a long time, but this mission was not assigned for the F-15 due to its limited range when carrying bombs. Using CFTs might have

rectified this problem but only a handful of units were available, the inventory not sufficient to support a whole F-15 strike mission. However, it was obvious that the F-15s would escort whatever aircraft type chosen to strike at Iraq. At first the mission was laid upon the F-4Es, using A-4s as buddy tankers en route. But with the early delivery to Israel of the F-16As, capable of carrying two Mk.84 bombs, three external fuel tanks and two AIM-9s, the decision was changed. The eight F-16s that destroyed the Iraqi reactor on June 6, 1981, were escorted by six F-15s, and had they encountered air opposition the Eagles would probably add Iraqi kill markings to their nose sections. The Eagles were also used as relay communication stations between the IAF headquarters and the F-16s flying en route at low altitude.



Above: A letter of appreciation from the IDF Chief of the General Staff Lt.-Gen. RAFAEL Eitan, to the squadron CO Lt.-Col. Moshe Melnik, for the squadron participation in Operation Opera. Below: From the personal logbook of Moshe Melnik, the flight route maps and emergency Iraqi money provided to the pilots. Moshe Melnik flew the leading F-15 aircraft in Operation Opera.



Formation "Naples"

1. Saul Simon - a/c no.673

2. Amir Greenfeld

Saul Simon and Amir Greenfeld after the aerial combat of July 29, 1981. Above, Saul Simon in the cockpit of aircraft #673. Below, greeted by the base commander Brig.-Gen. Aviuh Bin-Nun (right, lower left photo) and squadron CO Lt.-Col. Moshe Melnik. 'Bat' squadron CO Lt.-Col. Gideon Sheffer (right, lower right photo) greeting Saul Simon upon arrival to the squadron.

Moshe Melnik is holding a bottle of champagne. Bottom: Amir Greenfeld describing the combat stages to Aviuh Bin-Nun.

Photo: Tel-Nof AFB archive



Last skirmish before the storm

The newly placed Syrian SAM array changed the rules of the game for aerial warfare in southern Lebanon. The IAF has generally delimited itself from the area defended by the SAMs and avoided prolonged action within it when such activity was necessary. There was still adequate capability to operate against the PLO, but extreme caution had to be taken not to fly into the SAM envelope. During July 1981 PLO terrorists commenced artillery and rocket attacks across Israel's northern border, killing 6 civilians and injuring 122. The IDF response included counter fire and attacks from sea and air, but hunting the small and mobile rocket launchers was an almost impossible mission, and a cease fire was achieved only when American diplomats intervened and mediated the negotiations. The cease-fire agreement was actually a set of understandings between the fighting sides about what was allowed and forbidden during the fighting. During the skirmishing the F-15s gained another kill, at the region of Beirut but this time mere luck determined the outcome of the fight; On July 29, 'Naples' flight, was scrambled to assist two 'Bat' squadron F-4s. On their way north, the F-15s monitored the southbound Phantoms on-route to their AFB and continued to patrol the region of Beirut. Approximately 15 miles north of Beirut the F-15s were instructed by ground controllers to fly east to engage a target 40 miles away, flying in their direction.

Both formation members detected the target at a range of 38 miles, obtained a positive radar lock, jettisoned their external fuel tanks and ignited their afterburners. Meanwhile, the controller informed the air-crews that the target was a MiG-25, evident by its speed now nearing 950 knots. At 6 miles distance 'Naples 1' launched a single AIM-7 which turned sharply upwards to impact the rear section of the MiG-25. The MiG spiraled downwards shedding a huge trail of smoke – another Foxbat claimed by the Eagles. The F-15 'Naples' formation then detected additional MiGs at 14 miles eastbound back to Syria and initiated a chase. Ten miles away from the Syrian border ground control vectored the Eagles away to engage another MiG-25 detected at 12 miles to their southwest flank. 'Naples' flight turned towards the new threat, but did not initially detect the Syrian aircraft. Suddenly 'Naples 1' called "two, break hard, you're being fired upon". 'Naples 1' detected the MiG-25 Foxbat ascending at the F-15 formation from below and launching a missile from one of its under wing pylon. 'Naples 1' broke up and right and viewed the missile pass harmlessly beneath 'Naples 2' as another missile was fired by the MiG. 'Naples 2' broke hard as well, following his leader in close formation, consecutively entering his jet wake. Mistakenly interpreting the concussion as a missile strike, 'Naples 2' reported as being struck by a missile. Acknowledging situation, 'Naples 1' monitored the MiG pass closely beneath him and pulled hard behind



the Foxbat. From this position 'Naples 1' did not observe any external damage in 'Naples 2' and moved his attention to the MiG, firing an AIM-7 that was on course but exploded 300 meters behind the target. 'Naples 1' fired another AIM-7 but disengaged after the controller identified additional MiGs flying at his direction.



All photos on this page are from the first half of 1981. Left: F-15A no.696 with one kill marking representing the MiG shot down by Ilan Margalit in the end of August 1981. Below left: F-15A no.684, before the June 9, 1982 encounter in which Ronen Shapira shot down a MiG-23. At that period, the aircraft lacked individual titles.

Photos: Dr. Ran Yahalom collection



Below: F-15A no.676 returning from a sortie in early 1979. Maj. Guy Golan was killed in this aircraft after a crash that occurred on September 29, 1979. Of special note are the specially developed Python 3 air-to-air missile adaptors attached to the store pylon. The missile wing span called for new adaptors to be developed. The interim solution shown was first operational with the IAF F-4E 'Kurnass' when the missile entered service in 1978. These adaptors prevented the use of external fuel tanks on the wing pylons of the IAF F-15s. A new adaptor designated 'Rake' ('Magrefa' in Hebrew) entered service in 1983, distanced the two missiles per pylon allowing fuel tanks to be carried.

Inset below: Fire extinguishing foam covers the wreckage of F-15A no.676.

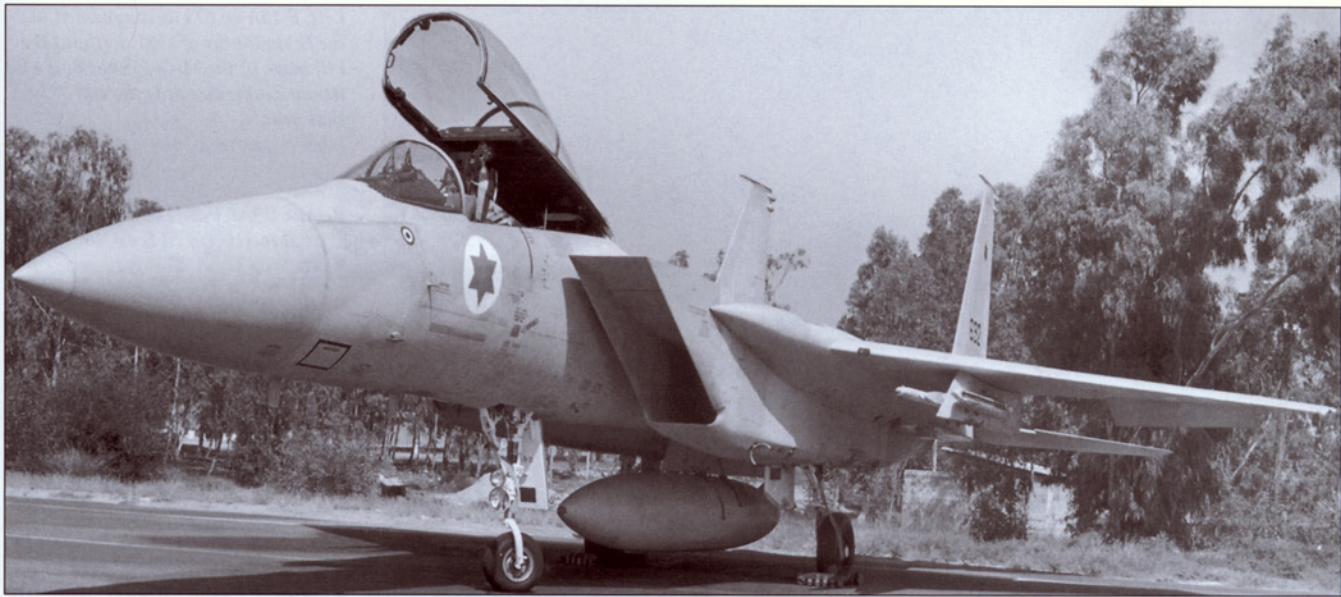
Photo: Ra'anana Weiss collection



F-15A (76-1508) No. 663, Knights of the Twin Tail squadron, 1979

Aircraft no.663 was the first F-15 in the world to achieve an aerial kill in June 1979. Configured for an air superiority sortie, it is armed with four RAFAEL Python 3 and four Raytheon AIM-7 Sparrow air-to-air missiles.





F-15B (76-1525) No. 708, Knights of the Twin Tail squadron, 1979

One of first two F-15B's in IAF service. Payload consists of four AIM-9H Sidewinder and four Raytheon AIM-7 Sparrow air-to-air missiles. A 600 gallon external fuel tank is attached to the centerline store station.



Top: F-15A no.692 with a kill mark of a MiG-21, shot-down by Israel (Relik) Shafir on September 24, 1979.

Photos: Dr. Ran Yahalom collection

Right and below: One of the well kept secrets was the operational capability of the RAFAEL Python 3, in general and in particular on the IAF F-15 force. State of Israel President, Itzhak Navon, during a visit to the squadron on January 30, 1980. Delegation included Chief of the General Staff Lt.-Gen. Rephael Eitan, Commander of the IAF Maj.-Gen David Ivry, Tel-Nof Commander Avihu Bin-Nun and squadron CO Lt.-Col. Benny Zinker. The president receives details explanations on the new missile.

Photo: Tel-Nof AFB archive



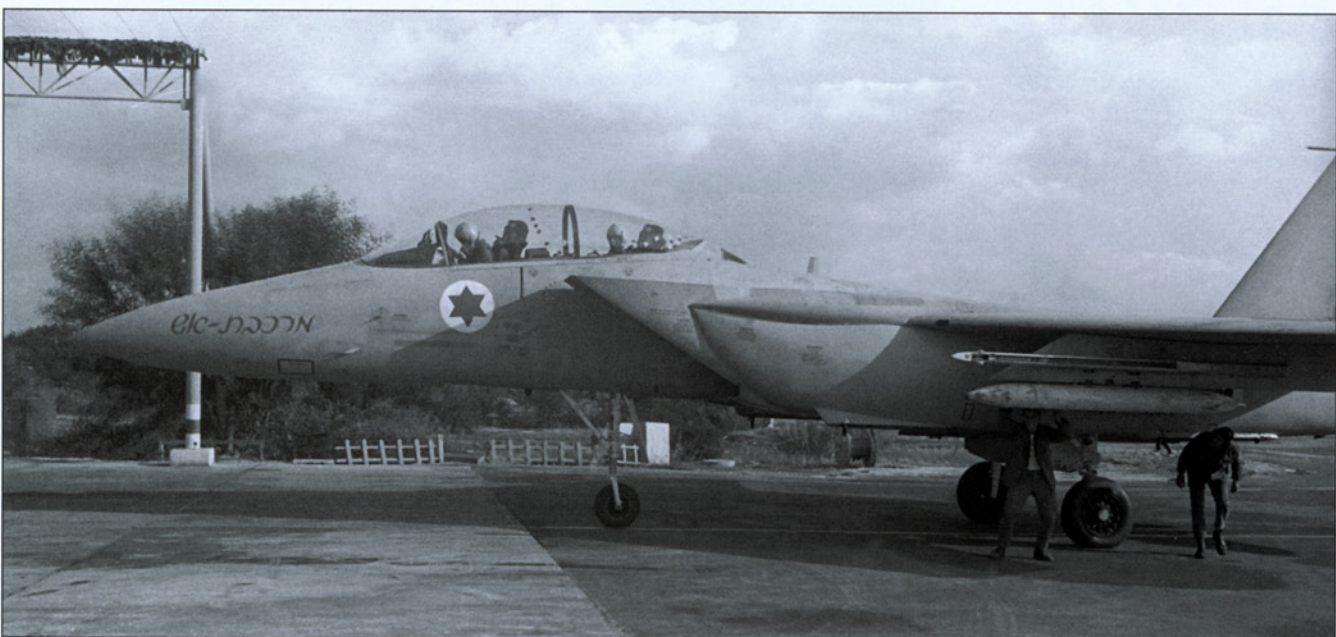


Left: F-15A no.673 as it appeared in the first months of 1981, without the kill mark of the MiG-25 shot down by Benny Zinker towards the end of July that year.

Photo: Dr. Ran Yahalom collection

Below: USAF F-15D no.80-0134 upon arrival to Tel-Nof AFB on November 12th, 1981. This F-15D was granted IAF no.965 and named 'Chariot of Fire' as evident in bottom photo. This aircraft, as all other F-15C and D that were delivered prior to June 1982 'Operation Peace for the Galilee', first entered service with 'Knights of the Twin Tail' squadron and after the war, transferred to the 'Spearhead' squadron. This aircraft crashed during a training sortie on August 10, 1997, in which both aircrew, Capt. Ronen Lev and Capt. Yaron Vivante were killed.

Photo: Ra'anana Weiss collection





Above and right: USAF F-15D no.80-0135 upon arrival to Tel-Nof AFB on February 24, 1982. This aircraft was granted IAF no.970 and named 'Ayelet Ha'Shachar' (Hebrew for Morning Star) as presented on the photo to the right.

*Above Photo: Tel-Nof AFB archive
Right photo: Ofer Zidon collection*



Below: USAF F-15D no.80-0136 arrived one month ahead of 80-0135, on January 23, 1982.

The IAF allocated number was 979 and name granted, 'Wings Flutter'. In 'Operation Peace for the Galilee' this aircraft shot-down a SAF MiG-21. Two MiG-23s were shot-down on June 24, 1982, after the aircraft was transferred to the 'Spearhead' squadron.

Photo: Tel-Nof AFB archive



Action begins

For the next 11 months the PLO shifted its efforts from Israel's northern border to other fronts, such as the Jordanian border and also initiated attacks on Jewish communities and Israeli contingents abroad. The IDF had detailed plans to confront the PLO and other terrorists organizations in southern Lebanon, but the understandings achieved on July 1981 hampered the capabilities of the IDF. The clashes with the SAF also dwindled down, with two MiGs shot down by F-16s almost a year later in May 1982.

On June 3, 1982, members from the Abu-Nidal group (one of PLO factions) attempted to assassinate the Israeli ambassador to Great Britain, Shlomo Argov, as he was leaving a diplomatic affair at a hotel in London. This act drew a massive Israeli response, attacking PLO targets in Lebanon. The PLO responded with a barrage of artillery and rocket fire, sending Israeli citizens to a prolonged stay in their home shelters. Facing this situation, the Israeli government decided to drive the PLO away from Lebanon and remove the threat from the northern border. On the noon hours of June 5, six IDF divisions invaded Lebanese terrain

and began fighting terrorists' positions, with heavy air and naval support. The nature of the Syrian response was unknown. When and how fiercely will the Syrians intervene? As IDF armored columns progressed north, it became clear the Syrians weren't going to retreat. The IAF avoided entering the SAM defended area (an indication to its success) and didn't collide with the SAF, but it was clear that this interim status was of transient nature. The next day, June 7, marked the first engagement between the F-15s and the MiGs. 'Hedgehog', a flight of four F-15s, was patrolling west of Beirut when directed by the ground controller to a south-easterly course to evaluate MiGs detected flying within the SAM array zone. At the same time, 'Hedgehog 2' detected another MiG flying to their south, in a western course. As the Eagles closed the range the MiGs turned back into the cover of the SAM array, and the flight was vectored towards the single MiG 'Hedgehog 2' followed earlier. Now identifying the target as a MiG-23, 'Hedgehog 2' locked his radar and launched a single AIM-7 that reached its target and detonated, but the MiG remained intact. 'Hedgehog 2' fired another missile, this time a Python 3, followed by 'Hedgehog 1 and

Formation "Hedgehog"

1. Avner Naveh /
Elitzur L. - a/c no.950
2. Ofer Lapidot - a/c no.658
3. Dadi Rosenthal - a/c no.828
4. Noam Canaani - a/c no.686

Below: Saul Schwartz and Reoven Solan upon arrival to the hardened shelter on June 8, 1982, after downing of a MiG-21 over Lebanon with F-15D no.957. Three additional kills credited to Avner Naveh were added two days later. Note partial section of aircraft name.

Photo: 'Knights of the Twin Tail' squadron



4' firing missiles from the flanks. The Python hit the MiG which began rolling uncontrollably as the pilot ejected.

On June 8 the Eagles encountered additional action as IDF ground forces advanced towards Syrian army positions. 'Palace', a flight of two F-15s, was patrolling along the Lebanese coastline when vectored south-east by ground control tracking MiGs leaving the SAM array envelope at 20,000ft. 'Palace 2' identified three targets on his radar screen, while 'Palace 1' failed to lock. As the Eagles and the MiGs crossed, 'Palace 1 and 2' turned and positioned themselves behind the MiGs, now identified as MiG-21s flying in a southern course and seemingly unaware of the Eagles. From 2 miles range, 'Palace 1' fired an AIM-7 which exploded shortly after leaving the aircraft. A second

Formation "Palace"

1. Saul Schwartz /
Reuven Solan - a/c no.957
2. Yoram Hofman - a/c no.686

Left: F-15A no.658 in a vertical climb during the 1990s. The aircraft was named 'Typhoon' and carries two kill markings, one by Ofer Lapidot from June 7, 1982 and the second by Gil Rapaport two days later.

Photo: IAF magazine



Formation "Visit"

1. Saul Simon - a/c no.818
2. Rani Eisenberg /
Elitzur L. - a/c no.708
3. Dadi Rosenthal - a/c no.832
4. Ofer Lapidot /
Reuven Solan - a/c no.704

Formation "Lenient"

1. Moshe Melnik - a/c no.802
2. Udi Zohar - a/c no.661
3. Baruch Granot - a/c no.667
4. Avi Maor - a/c no.646

Above: F-15A no.646 'Thunder' with four kill markings of which two were credited to Avi Maor from the engagement of June 8, 1982.

Below: F-15A no.802 in low level flight over the southern tip of the Sea of Galilee. With this aircraft Moshe Melnik achieved two aerial kills during the same aerial combat.

Photos: IAF magazine



AIM-7 was launched to destroy the MiG-21. 'Palace 1' began to track the leading MiG-21 but as closure rate was too high pilot had to break away, while the MiG-21 performed two sharp turns losing speed and height. Trailing was 'Palace 2' that performed a vertical loop, maneuvered to firing position and launched an AIM-7 which guided flawlessly to destroy the MiG. Another flight of F-15s shared a MiG-23 kill with AIM-7 missiles (formation 'Visit').

Decisive battles

After three days of scattered encounters with the Syrians, IDF ground forces became fully engaged with Syrian army units. But the IAF could not achieve air superiority and support the IDF ground forces in the presence of the SAM array. Nine years after the Yom Kippur War, when "the missile has bent the fighter's wing", as written by the former IAF commander (and later president of Israel) Ezer Weizmann, the IAF was about to settle the account with Syrian air defense units. Coded "Mole Cricket 19" by IAF planners, the operation of destroying the SAMs combined numerous systems and weapons, woven together to defeat the lethal SAM array and clear the sky for the IAF.

On June 9 an armada of F-4Es, Kfir and A-4s took off from various IAF bases and initiated the first stage of the operation. Under massive EW jamming and concealed among gliding decoys, F-4s from the 'Scorpion' squadron fired a salvo of AGM-78 Standard ARM missiles while A-4s launched AGM-45 Shrike missiles, destroying the SAM sites target acquisition and tracking radars. Another wave of strike aircraft destroyed the sites by means of conventional and cluster bombs. In total, 19 Syrian SA-2, 3 and 6 sites were destroyed from stand-off range.

Opposing the SAF in the air were the IAF F-16s and F-15s which were about to set a record in modern aerial warfare – more than 80 kills without taking any loss. Before noon, 'Lenient', a flight of four F-15s, was patrolling over the western ridges of Lebanon. The flight received several warnings from ground controllers of MiG-23s flying at low altitude, but none emerged so far. When the flight reached the area of Riak airfield, the pilots detected low flying MiGs to their East. Since numerous IAF aircraft were operating against the SAM sites that day, the flight had to visually identify their targets before firing. As the Eagles closed in, 'Lenient 3 and 4' identified a MiG-23 and chased it at low altitude. 'Lenient 3' fired an AIM-7 but the missile exploded shortly after leaving its rail. 'Lenient 3' fired a Python 3 and but though exploding in the vicinity MiG it seemed undamaged. 'Lenient 3' fired another Python when the MiG pilot ejected. 'Lenient 1' sighted a single MiG-23 head on, passing beneath him and made an 8G turn to the right, ending up 2,500m behind the MiG. 'Lenient 1' launched a Python 3 that impacted on target that continued on course with trailing black smoke. An AIM-7 was launched to finally destroy the MiG. 'Lenient 1' now shifted to the East to view 'Lenient 3' attacked from aft by two MiG-21s, each firing a missile. 'Lenient 1 and 4' warned 'Lenient 3' as pulled hard, the missiles passed harmlessly behind. The MiGs turned north to evade the fight, closely followed by 'Lenient 1 and 4' that

commenced a chase. 'Lenient 1' fired a Python 3, destroying the trailing MiG while 'Lenient 4' launched a missile at the leading MiG that failed to impact. The pilot switched to guns mode due to a close range of few hundred meters. After a few bursts from his Vulcan 20mm cannon destroyed the MiG.

Later on that day, 'Notepad', a four-ship F-15 patrol was flying near Riak airfield when they spotted two pairs of MiG-21s flying ahead of their position. 'Notepad 3', who was leading the flight due to technical problems encountered by 'Notepad 1', locked on the leading MiG, fired an AIM-7 and prepared to launch a Python 3 at the trailing MiG, when it pulled hard to the left. 'Notepad 3' switched to guns mode but was warned by 'Notepad 2' of several SA-7 missiles fired from the ground, causing everyone to break and clear their tails. As 'Notepad 3' realized he was safe he witnessed his AIM-7 hits the leading MiG. The trailing MiG was accelerating away. The pilot fired a single Python 3 that destroyed the MiG. 'Notepad 4' launched an AIM-7 at the leading MiG and destroyed it as well. The two remaining MiGs disengaged. 'Notepad 3' sighted one of the MiGs pulling under another F-15, made a barrel roll and a vertical maneuver and attacked the MiG from above. 'Notepad 2' fired a Python 3 with a weak lock at the MiG, but the missile swayed right and left and then dived to the ground. 'Notepad 2' fired another

Python 3, this time striking the MiG's tail. The MiG began trailing white smoke and crashed after few seconds. As 'Notepad 2' was pulling out 'Notepad 3' spotted a missile, probably fired by the remaining MiG, approaching 'Notepad 2' from behind. 'Notepad 3' warned 'Notepad 2' several times to break but 'Notepad 2' suffered a hit in its right engine and began to trail white smoke. The flight gathered around the damaged Eagle, and began to climb slowly back south to Israel. 'Notepad 2' shut down the right and activated the fire extinguishing system. As the flight climbed the fire died out and the Eagle landed safely at Ramat-David. In additional aerial fights, two MiG-23s were claimed by two flights using call



Formation "Notepad"

1. Eitan Ben-Eliyahu - a/c no.689
2. Ronen Shapira - a/c no.686
3. Yoram Peled - a/c no.684
4. Oran Hampel - a/c no.695

Formation "December"

1. Eitan Ben-Eliyahu / Tamir S. - a/c no.970
2. Yiftach Shadmi - a/c no.696
3. Baruch Granot / Zvi Liphshitz - a/c no.708
4. Ronen Shapira - a/c no.684

Formation "Martin"

1. Benjamin Zin (Zinker) - a/c no.696
2. Gil Rapaport - a/c no.658
3. Carmel - Kfir C2
4. Peleg - Kfir C2

Upper left: F-15A no.695 during an emergency rescue exercise in mid 1981. The name 'The Star' is yet to be added, though the three kill marks are visible, two by Aneer Naveh from September 1979 and a third dated December 1980. A fourth was added by Oran Hampel on June 9, 1982.

Photo: Dr. Ran Yahalom collection

Left: F-15A no.686 during a deployment to IAF Nevatim AFB in the late 90s. Noticeable are its two kill markings, representing SAF MiG's shot-down on June 8, 1982 and the following day.

Photo: Dr. Ran Yahalom collection

Below: 'Knights of the Twin Tail' squadron F-15C no.848 'Baz' (Hebrew for Falcon) landing at Tel-Nof AFB in February 2006. The aircraft served for until recently in the 'Spearhead' squadron. The two kill roundels relate to two MiG's shot-down in two separate sorties over Lebanon, on June 10, 1982.

Photo: Ra'anana Weiss





Above: F-15D no.957 'Skyblazer' taking-off with full afterburners, during a deployment of the 'Spearhead' squadron to IAF Ovda AFB in August 2005. Noteworthy are 4 1/2 kill roundels.

Photo: Ra'anana Weiss

Formation "Rattler"

1. Avner Naveh / Michael Choen - a/c no.957
2. Noam Canaani - a/c no.821

Formation "Note Pad"

1. Sha'ul Schwartz / Uzi S. - a/c no.708
2. Yoram Hofman - a/c no.848
3. Eitan Remler - a/c no.950

Formation "Bandage"

1. Avner Naveh - a/c no.812
2. Noam Canaani - a/c no.802
3. Saul Simon - a/c no.658
4. Arnon Shrater - a/c no.681

sign 'December' (aircraft no.684) and 'Martin' (aircraft no.658), a single MiG by each flight member, for a total of 9 MiGs shot down by F-15s that day. Two more MiGs crashed into the ground while trying to evade a flight of Eagles and were credited as squadron kills. The Syrian SAM air defense infrastructure was mostly destroyed, though not completely. During the night between the 9th and 10th the Syrians positioned a small number of mobile SAM units, to compensate for the non-operational sites.

On June 10th the IAF launched another strike wave against the remaining SAM sites. 'Rattler', a flight of two F-15s and two Kfirs, was patrolling over lake Kar'un in search for Syrian Gazelle anti-tank helicopters that were attacking Israeli AFVs. While flying in a North - East course they detected a pair of MiG-23s flying southward, at 20 miles range. The MiGs turned East, positioning themselves in the Eagles' sights. From 3 miles range 'Rattler 1' fired an AIM-7 at the leading MiG and in rapid succession a Python 3 at the trailing MiG. Both

missiles hit and the MiGs crashed. The flight kept patrolling and after 10 minutes sighted a single MiG-23 flying in the same manner. The aerial battle repeated itself with 'Rattler 2' destroying the MiG with a Python 3.

Later on 'Notepad', a four-ship F-15 formation was patrolling near Riak airfield when 'Notepad' 1 detected a single MiG flying North. 'Notepad 1', an F-15B, began closing on the MiG when the WSO informed his pilot that a pair of MiG-21s was attacking them from behind. One of the MiGs fired 2 Atoll missiles at 'Notepad 1', but the missiles failed to lock on the IR signature of the F-15. As 'Notepad 1' disengaged the MiGs, 'Notepad 2' rolled and dived behind them and tried to fire an AIM-7 but couldn't get a lock on. A Python 3 followed but failed to chase the MiG. 'Notepad 2' made a gun pass at 300 meters to destroy the MiG. 'Notepad 1' identified the second MiG and shot it down with a Python 3. At noon, 'Bandage' flight of four F-15s, while patrolling in the region of Riak airfield, conducted north-south



Right: Northbound F-15C no.840 over the ancient city of Acre, configured to an air superiority sortie typical for the late 80's.

Photos: IAF magazine



Formation "Comb 1"

1. Shlomo Egozi - a/c no.810
2. Ziv Nadivi - a/c no.848

Left: Exceptional in-flight close range photo of F-15 no.667 'Cyclone' shortly after June 1982. Note single kill roundel of a MiG-21 shot-down by Iftach Snadmi on June 10, 1982.

Photo: Col. (res.) Shimshon Rozen

Below: F-15D no.455 as photographed in the mid 90's. Its number was changed from 955 after a 1983 conversion added photo-reconnaissance capabilities to the aircraft. The kill roundel relates to a MiG-21 shot-down by Micky Lev on June 10, 1982.

Photo: IAF magazine

Formation "Comb 2"

1. Benjamin Zin (Zinker) - a/c no.840
2. Gil Rapaport - a/c no.828

Formation "Plundered"

1. Yoram Peled / Zvi Liphshitz - a/c no.979
2. Yftach Shadmi - a/c no.667
3. Yoel Feldschuh - a/c no.661
4. Amir Greenfeld - a/c no.818

Formation "Prolific"

1. Moshe Melnik / Amir Chodorov - a/c no.704
2. Udi Zohar - a/c no.840
3. Micki Lev - a/c no.755
4. Doron Goldblat - a/c no.644

runs, identified a pair of MiGs flying easterly in their direction. The MiGs began a turn to the left with the Eagles gently pulling and placing themselves behind them. Over Lake Kar'un 'Bandage 1' identified the aircraft as MiG-23s flying low at 300 feet in trail formation. The F-15 launched a Python 3 from 2,000 meters. A second Python was also on route the second MiG-23.

Later in the afternoon, 'Prolific', a flight of four F-15s, was patrolling over Riak when 'Prolific 3' detected a formation of MiGs flying from the region of Damascus towards the F-15s. Following his lead, 'Prolific' formation closed the range and at a range of 10 miles from the MiGs obtained an approval to open fire. 'Prolific 3' fired a single AIM-7, but as ground controllers warned that IAF aircraft are in vicinity, the pilot aborted the lock. The Eagles now had to visually identify the enemy aircraft before opening fire. The formation split into 2 pairs. The MiGs from the west, identifying them as a pair of MiG-21s. 'Prolific 3' was the first to identify 2 MiG-21s and from 800 meters range launched a Python 3 destroying the MiG a split second later. Due to his high closure speed 'Prolific 3' was forced to pass through the missile's smoke trail and explosion. The F-15 airframe was punctured with several fragments, with damage inflicted

to the canopy and the left engine oil system. The formation now turned south towards suspected MiGs detected at 3 miles. At this point, few Sa-7 missiles were fired at 'Prolific 1' and immediately afterwards, the F-15 was attacked from the aft. 'Prolific 3' monitored the chase from above and when 'Prolific 1' was clear from the MiG and SAM threat he pulled hard to pursue another MiG that flew past his leader. After some maneuvering 'Prolific 3' obtained a firing position at 1000 meters behind the MiG. A Python 3 missile that reached the target failed to explode. The MiG pulled over and turned East and performed evasive maneuvers while the F-15 with its CFTs was slower to react. 'Prolific 3' fired two AIM-7 missiles in succession, but the first exploded short of the MiG, and the second failed to guide due to radar problems. 'Prolific 2 and 3' both chased the other MiG-21, but the AIM-7 launched by number 3 failed to encounter the MiG. The F-15s returned to Tel-Nof AFB 'Prolific 3' with one functional powerplant. In additional fights, two MiG-23s were claimed by 'Comb' flight, while another 'Comb' flight destroyed a Gazelle helicopter over Lake Kar'aun. Two MiG-21s were destroyed by a flight using the call sign 'Plundered'. For the Eagles, this was the best day of the entire campaign, bearing a total of 12 kills.



Formation "Maturity"

1. Avner Naveh
2. Noam Canaani
3. Yoram Peled - a/c no.678
4. Udi Zohar - a/c no.672

Formation "Nails"

1. Dadi Rosenthal - a/c no.689
2. Ofer Lapidot - a/c no.646
3. Peri Ben-Ami /Aukman- F-4E Scorpion squadron

Formation "Blowtorch"

1. Micki Lev /Elizur L. - a/c no.970
2. Amir Greenfeld - a/c no.848
3. Saul Simon /
Amir Chodorov - a/c no.704
4. Yftach Shadmi - a/c no.840

Last day of fighting

June 11th was the last day in which aerial combat took place. The Syrian Army was essentially defeated in the land combat and withdrew from southern and central Lebanon. During the first days of 'Operation Peace for the Galilee' most air battles occurred over the Beka'a Valley region of central Lebanon. On June 11th most aerial fighting was over the Syrian border towards Damascus or in the central or northern regions of Lebanon near Beirut. 'Maturity', a flight of four Eagles, was vectored against a probable MiG-25 flying at the region of Saida. Number 3 detected an aircraft flying at 63,000 feet in a southern course but was banned from engaging. The aircraft turned out to be a USAF U-2, so the flight was directed to patrol at the region of Junea. 'Maturity 3' then detected two eastbound aircraft at 25 miles range. The flight now separated into two pair formations, flying 3 miles apart. Over Riak Airfield Maturity 3 singled out the aircraft as two MiG-23s with their unique wings swept back wings, flying towards the airfield at low altitude and high

speed. After verifying the F-15s were not trailed by additional MiGs, 'Maturity 3' shot down the MiG-23 with an AIM-7 from a range of 2,500 meters. Forced to ascend due to AA ground fire, the pilot lost contact with the leading MiG. Switching radar to autogun mode, the pilot reacquired the MiG and launched an AIM-7 that destroyed the MiG seconds later. Three additional MiGs were downed by F-15s that day, marking them as the last kills for the First Eagle squadron.

The obvious winners of the fight between the new generation of MiGs and western frontline fighters were the later, thanks to the Israeli pilots, planners and engineers. The F-15s alone gained an amazing total of 31 MiGs within five days of battle, with IAF F-16s destroying a similar number. With the air war over, the First Eagle squadron was finally able to procreate its counterpart, the Second Eagle squadron. The squadron fought the war with an enlarged order of battle of almost 40 airframes, while an IAF squadron usually comprises 25 airframes.



Above: F-15B no.404 photographed in the late 90's. Originally no.704, prefix digit was changed after being converted to photo-reconnaissance missions. Removal of the M61 cannon system, sealing of the muzzle aperture and a transparent section replacing the cannon lower access door, were the main changes allowing vertical photography. The aircraft is armed with two RAFAEL Python 3 installed on the outer adaptors, two Python 4 on the inner adaptors and four Raytheon AIM-7 Sparrow air-to-air missiles.

Photos: IAF magazine

Right: F-15 no.678 in low level flight over the Negev Desert. The aircraft is armed with two RAFAEL Python 3, two Python 4 and four Raytheon AIM-7 Sparrow air-to-air missiles. The two kill markings are of Syrian MiG-23 shot-down by Yoram Peled on June 11, 1982.

Photo: Dr. Ran Yahalom collection





Above: Ground and air crews of the two joint F-15 squadrons at the end of 'Operation Peace for the Galilee'. Parked behind are the two F-15 with the highest enemy aircraft kill rate. Of note is the Python 3 with its special missile adaptor on aircraft no.802 and the same adaptor on aircraft no.695.

Photo: Tel-Nof AFB archive



Left: Photographed in the late 1980's, F-15 no.404 being towed near the flight-line of Sikorsky CH-53E 'Yas'ur' (Hebrew for petrel).

Photos: IAF magazine

Below: Four F-15s parked in the 'last chance' point, prior to a ground attack training sortie. Note the SUU-20 Practice Bomb Adaptors under the wing pylons. While the 'Spearhead' squadron holds operational capability with the RAFAEL Popeye air-to-surface standoff missiles, the 'Knights of the Twin Tail' squadron ordnance are only Iron Bombs: Mk.-82's on Multiple Ejector Rack (MER) adapters and Mk.-84s directly on the pylons.

Photos: IAF magazine

Post Lebanon Action

The F-15s of the 'First Eagle' squadron took part in almost every major operation of the IAF. In 1985 two F-15s joined the attack on PLO headquarters in Tunisia releasing iron bombs to increase the mayhem caused by the GBU-15s dropped by the 'Second Eagle' squadron's F-15s.

During the 1991 operation Desert Storm in Iraq, F-15s were constantly patrolling the borders of Israeli airspace, prepared intercept enemy aircraft. Had the Israeli Government approved to retaliate against Iraq for the Scud missile attacks, the Eagles would have been tasked to provide cover for the striking aircraft and to contact attack with precision attacks. The skills of the F-15 pilots were demonstrated during July 1993, When the IDF conducted operation "Accountability" against Hizbulla targets at southern Lebanon. The Eagles ordnance included Mk.82 and Mk.84 iron bombs to destroy terrorist targets.

Today, the 'Knights of the Twin Tail' act as the prime IAF interception squadron, while holding a secondary reconnaissance and strike roles. The squadron's F-15s are probably the best equipped

Eagles in the world, with Elbit Systems DASH helmet mounted sights and armed with all-aspect RAFAEL Python 4/5 air-to-air missiles.





Above: Two photos of F-15A no.684 'The Vampire' dated August 6, 1981. During operation 'Peace for the Galilee' it shot-down two Syrian MiGs. On August 15, 1988, piloted by Maj. Ehud Falk, this aircraft collided with F-15A no.672 'Tornado', piloted by the squadron CO Lt.-Col. Ram Koller. Both were killed in this tragic accident.

Photo: Tel-Nof AFB archive

Right: The leading F-15A in this staged photo, no.646 'Thunder', was the only aircraft of the original four FSD type to have shot-down enemy aircraft. F-15A no.646 was withdrawn from service on 2004.

Photo: IAF magazine

Below: F-15A no.698 without a payload. This aircraft arrived to Israel on April 5, 1978, and was the last to be delivered from the initial contract of 25 airframes. Aircraft was named 'Comet' and was not credited with any aerial victories.

Photo: IAF magazine



Squadron losses and accidents

September 19, 1979 – F-15A no.676 (76-1513) was lost after being scrambled to identify a suspected aircraft over northern Israel. The aircraft crashed upon landing approach at Tel-Nof AFB in adverse weather conditions. The pilot Maj. Guy Golan was killed.

August 15, 1988 – F-15A no.672, "Tornado" (76-1511) and F-15A no.684 "The Vampire" (76-1516). The aircraft collided during ACM training in the Dead sea region, killing both pilots, Lieutenant Colonel Ram Koller, the squadron commander, and Major Ehud Falk.

August 4, 1998 – F-15A no.689 "Lark" (76-1518) – While taking-off to an ACM training sortie, the pilot noticed a left powerplant failure. Though the aircraft was already airborne and the engine recovered, the pilot decided to abort take-off, set the engines to idle and turned back to the runway. The pilot deployed the arresting hook but it detached from the aircraft due to the high landing speed. The aircraft also tore through the emergency barrier net and came to a final stop 270 meters beyond the runway's end. Pilot was unharmed but the aircraft seemed to be a total loss. The aircraft returned to operational service after two years of repair work.



Photos in this page: F-15A no.644 'Barak' (Lightning in Hebrew). In late 1987 it was decided to conduct experimental camouflage painting schemes on two aircraft. Aircraft no.644 was painted with the two original Grey shades (FS 36320 and FS 36375) and the IAF Sand (FS 33531). F-15A no.646, on the other hand, was painted Brown (FS 30219) on the upper fuselage and the original Grey on the lower fuselage. Needless to say, these color schemes were never adapted and both aircraft were repainted with their original colors.

Photo: 'Knights of the Twin Tail' squadron



Above: In an attempt to provide an 'Aggressor' squadron character, a red star was painted on the vertical tailplanes of aircraft numbers 620 and 644, instead of the squadron insignia.

Left: Camouflaged F-15A no.644 exiting a hardened shelter to a training sortie during a deployment to Ovda AFB.

Photos: 'Knights of the Twin Tail' squadron



F-15A No. 644, Knights of the Twin Tail squadron, 1988

'Knights of the Twin Tail' squadron F-15A no.644 with a payload of four RAFAEL Python 3, four Raytheon AIM-7 Sparrow air-to-air missiles and a 600 gallon external fuel tank. The aircraft is painted with an experimental camouflage scheme that was eventually not adapted.



Right: Another attempt to provide some F-15 with an 'Aggressor' aircraft style. In the late 1990's F-15A no.667 'Cyclone' was painted Red in these sections: Wing tips, vertical/ horizontal tailplanes and air intakes. The aircraft was nicknamed 'Marlboro'. The applied paint was water based and the original squadron insignia and markings are clearly visible. The color scheme was inspired by the fourth test McDonnell Douglas F-15A (USAF 71-0283), though the original was Glowing Orange. The IAF Red color scheme was removed after a short while.

Photo: Dr. Ran Yahalom collection



F-15A (76-1509) No. 667, Knights of the Twin Tail squadron, 1999

This aircraft is armed with RAFAEL Python 3 and Python 4 air-to-air missiles under the wing pylons. A 600 gallon external fuel tank is attached to the centerline store station. The kill roundel represents a Mig-21 shot-down by Iftach Shadmi on June 10th, 1982.



Right and below: F-15A no.673 'The Sting' in last minute preparations prior to a long-range CAP sortie in the mid 1980's, armed with four AIM-7 Sparrow and four RAFAEL Python 3 air-to-air missiles. Clearly visible are the unique angles of the Python 3 missile adapters. Of note are the three 600 gallon external fuel tanks and that the safety pins of the M61 cannon and missiles are still attached. The aircraft carries a single kill roundel for a SAF MiG-25 shot-down by Saul Simon on July 29, 1981.

Photo: Dr. Ran Yahalom collection





Top: F-15A no.644, 658 and 692 in a close formation in the late 1990's.

Above right and left: Maintenance of the F-15 is performed in the 'Baz' hangar of the base maintenance squadron. F-15A's no.620 'Sufa' (Storm) and no.692 'Galaxy' are shown in these late 1980's photos.

Left: F-15A no.658 'Typhoon' in close formation with another 'Baz' over the Judean Desert. Noteworthy are the special Python 3 missile adapters.

Below: F-15A's no.696 'Haziz' (Firecracker) and no.681 'Romach' (Spear) prior to a training sortie during a deployment to Hatzorim AFB. Note enlarged IAF roundel on the vertical tailplane of no.696 and the 50th IAF anniversary motif on both aircraft tailplanes.

Photos on this page: IAF Magazine





Above: F-15A no.669 'Lahak' ('Flock' or 'Squadron') near the entrance of the 'Baz' hangar at Tel-Nof AFB in the late 1980's.

Photo: IAF Magazine

Right: F-15A no.661 'Hamsin' taking-off to an air-to-air training sortie. This aircraft and no.669 did not achieve aerial combat victories against Syrian Air Force MiG's

Photo: Ofer Zidon collection



Below: Three F-15A's no.620 'Sufa' (Storm), no.684 'The Vampire' and no.669 'Lahak' in close formation flight above a mountainous region in Samaria. In this late 1980's photo, payload of all three aircraft include the BVR Systems / IAI/MLM EHUD ACMI system (Air Combat Maneuvering Instrumentation).

Photo: IAF Museum



F-15B (76-1524) No. 704, Knights of the Twin Tail Squadron, 1982

One of the first IAF F-15B, with ordnance typical of the post 1982 war. Noteworthy are the early version of the Python 3 missile adapters. Payload consists of four each RAFAEL Python 3 and AIM-7 Sparrow are installed missiles, with a 600 gallon external fuel tank positioned on the centerline store station.





Above: A mixed formation from the mid 1990's includes F-15B no.109 (74-0109), F-4E 'Kurnass 2000' no.668 of 'The One' squadron and F-16D 'Barak' Block 40 no.612 of the 'First Fighter' squadron. In the back round is the snow covered crest of Mt. Hermon in northern Israel.

Photo: IAF Magazine



Left: F-15D no.455 taking-off to a training sortie with afterburners applied. Originally numbered no.755, it was changed shortly after entering service to no.955. After vertical photo-reconnaissance capabilities were added in 1983, the aircraft number was changed to no.455. Of note is the sealed M-61 cannon muzzle opening.

Photo: IAF Magazine

Below: F-15A No. 654 'Hurricane' returning from a training sortie in late 1998. Few aircraft were adorned with a larger layout of IAF 50th anniversary emblem only on the left vertical tailplane, while others displayed the standard motif.

Photo: Dr. Ran Yahalom collection





Above: F-15B no.109 'Silver Bullet' in a training sortie with rarely seen two 600 gallon external fuel tanks attached to the wing pylons. This aircraft was part of the contract in which surplus USAF F-15A/B versions were acquired at low cost. The two F-15A's were numbered with a prefix '1' while the F-15B's with '3'.

Right: F-15A no.654 'Hurricane' in the mid 1980's.



Below: F-15 no.404 in the late 1980's. During the first 20 years of 'Baz' service in the IAF, large format aircraft individual names were applied to the radomes. Due to technical problems and the interchangeability of radomes between aircraft, it was decided to apply the titles to the area below and front of the cockpit.

Photos on this page: IAF Magazine





Left: Photographed in the late 1990's IAF Boeing 707 'Re'em' (Ram) air-refueling F-15A no.620, with F-15A's no.658 and 684 in formation.
Photo: IAF Magazine



Below left: Visit of Deputy Defense Minister Mordechai (Motta) Gur to Tel-Nof AFB. Seated with him are squadron CO Lt.-Col. Tamir, IAF Commander Herzl Bodinger and base commander Brig.-Gen. Uzi Rozen. In back round is F-15B USAF no.73-0110 that received IAF no.110. The aircraft is yet to be installed with IAF instrumentation. The ALQ-135 pod is still positioned on the left vertical tailplane. The ejection seats are still missing. Interesting is that the original name 'Pillar of Fire' was changed to 'Arrowhead' when aircraft entered operational service. Number 110 was upgraded to 'Improved Baz' standard and is currently in service with the 'Spearhead' squadron.
Photos: Ofer Zidon collection

Photos below: Operation 'Grapes of Wrath' commenced on April 10, 1996. The squadron participated in this engagement conducting ground attack missions with 'iron bombs'. Five Mk.82 bombs were attached to IMI MER's on aircraft's centerline store station while Mk.84 bombs were positioned directly to the wing pylons. Photos below are from the actual operation.
Photo: 'Knights of the Twin tail' squadron



Left: USAF # 90-0275 / IAF no.733 was part of the forth contract in which five new F-15D's were acquired. Aircraft was named 'King's Envoy'.
Photo: IAF Magazine

Right: Photographed in the late 1990's, F-15's no.408, 450 and 455 awaiting take-off approval for a photo-reconnaissance sortie. Payload of each aircraft consists of two RAFAEL Python 3, two Python 4 and four AIM-7 Sparrow air-to-air missiles and two 600 gallon external fuel tanks.

Photo: Knights of the Twin tail' squadron



Right: F-15 no.714 'Iron Eagle' (Vulture) and F-15 no.404 'As an arrow from a bow', in a deployment to Ramat David AFB. F-15 no.714 is instrumented as an experimental aircraft and is usually allocated to IAF Manat.

Photo: 'Knights of the Twin tail' squadron



Below left: F-15D no.455 is slowing down using its air-brake. Note the dark F-15E style radome.

Photo: Dr. Ran Yahalom collection

Below right: F-15A no.693 'Bazak' (Swift) at the end of the landing run. In the late 1990's the aircraft's name was applied further back.

Photo: IAF Magazine



F-15D (80-0132) No. 455, Knights of the Twin Tail Squadron, 2006

This aircraft was named 'Draft' is a photo-reconnaissance 'Baz' that participated in the 1985 operation in Tunis. The kill roundel includes the silhouette of a GBU-15.





Above right: Israel's President Mr. Moshe Katsav receives explanation on the 'Improved Baz' cockpit from the squadron CO Lt.-Col. Amikam.

Photo: 'Knights of the Twin tail' squadron

Above left: Ground personnel prepare a group of Python 4 missiles prior to arming F-15B no.408.

Photo: 'Knights of the Twin tail' squadron

Left and below right: F-15A no.663 taxiing out of its hardened shelter and taking-off to a training sortie. The kill roundel represents the first aircraft shot down by a F-15 in the world. The pilot was Moshe Melnik and the aerial combat occurred on June 27th, 1979. Brig.-Gen. Moshe Melnik conducted his last flight on October 31st, 2003 on F-15A no.646, which was the first aircraft he piloted in Israel as the squadron's deputy CO.

Photos: Ra'anana Weiss

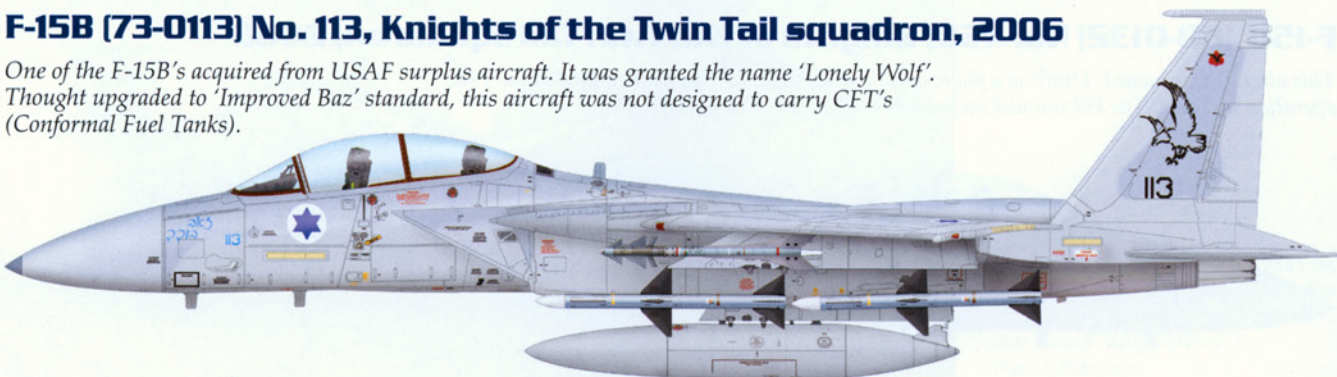
Below left: October 31, 2003 - Brig. Gen. Moshe Melnik leaving the cockpit of F-15A no.646 after his last flight as an active pilot.

Photo: Moshe Melnik collection



F-15B (73-0113) No. 113, Knights of the Twin Tail squadron, 2006

One of the F-15B's acquired from USAF surplus aircraft. It was granted the name 'Lonely Wolf'. Though upgraded to 'Improved Baz' standard, this aircraft was not designed to carry CFT's (Conformal Fuel Tanks).





F-15A (76-1521) No. 695, Knights of the Twin Tail squadron, 2005

This aircraft has a score of four Syrian Air Force MiG-21's over Lebanon in the period of September 1979 and June 1982. As most of the IAF F-15 in service, it was upgrade to 'Improved Baz' standard.



Above: F-15A no.695 'The Star' landing after completing an air-to-air training sortie in February 2006. Visible are the wingless Python 4 training missiles.
 Photo: Ra'anana Weiss



Right: F-15 in final landing approach after an air-to-air training sortie. Ehud ACMI system is attached to the inner missile adapter under the right wing pylon. A Python 3 training missile is positioned on the outer missile adapter under the left wing pylon.
 Photo: Ofer Zidon



Right: F-15A no.698 'Comet' landing after an air-to-air training sortie.
 Photo: Ofer Zidon





Daily routine flights of the squadron, February 12, 2006.

On page 62, taking-off for air-to-air training, are F-15 no.450 ('Two-edged sword'), F-15B no.111 'Spearhead' and F-15A no.663. On page 63 landing after completing the training sortie, are F-15 no.408 'Chariot of Fire', F-15B no.109 'Silver Bullet' and F-15B no.113 'Lone Wolf'. Aircraft numbers 109, 111 and 113 were not designed to carry CFT's (Conformal Fuel Tanks). The 'Turkey Feathers' of the exhaust nozzles were removed from the F-15 fleet for fuel saving purposes and are installed only when long range flights are conducted.

Photos: Ra'anana Weiss





In the summer of 2002 IAF F-15D deployed to the USA together with F-15I 'Thunders'. This was the beginning of a tradition in which IAF aircraft deploy each year to the USA and Canada for extensive training with other air arms, in the framework of 'Red Flag' or other. In the first deployment all F-15D's were aircraft numbers 7XX, the newest in the IAF fleet.

Photos: Ra'anana Weiss collection



In the 2004 deployment the to the USA, 'Knights of the Twin tail' squadron were represented as well. Aircraft numbers 450, 706 and 733 participated along with three 'Spearhead' squadron F-15's and four 'Hammers' squadron F-15I's.

Photos: Ra'anana Weiss collection

Below: A unique overseas deployment occurred on April 2004 in Poland. F-15's from the two IAF 'Baz' squadrons performed a fly-over the concentration and death camps of Auschwitz-Birkenau. The IAF aircraft also performed demonstration flights at Radom-Sadkow Polish Air Force base. Additional photographs appear next page.

Photos: Ra'anana Weiss collection





Brig.-Gen Amir Eshel, the Tel-Nof Commander during that period, led the aerial mission to Poland. He is seen on the top right and the lower right photos.

Photos: Ra'anana Weiss collection





One of the operational capabilities of the 'Knights of the Twin tail' squadron is aerial photography. As previously indicated, few F-15's were upgraded in 1983 with photo-reconnaissance systems. Their prefix digit '4' identifies these aircraft. Until the arrival of the F-16 'Sufa' (Storm), the numbers 4XX were reserved in the IAF to photo-reconnaissance aircraft. Various camera types for vertical photography can be installed internally in the upgraded F-15's. Oblique photography operations are conducted with an advanced camera system that is positioned in a 600 gallon external fuel tank converted for this task. Shown in this page are aircraft numbers 455 and 280 returning from a photo-reconnaissance sortie, armed with four RAFAEL Python 4, three AIM-7 Sparrow missiles and an LAI ELTA EW pod. The armament and photographic payload capabilities allow these IAF F-15's to operate with no escort aircraft.

Photos: Ofer Zidon





As a routine, 'Knights of the Twin tail' squadron and all other combat squadrons, deploy to other IAF bases, especially to Ovda AFB, the home base of the 'Flying Dragons', IAF 'Aggressor' squadron that professionally train IAF pilots in complex combat scenarios. On this page and the following page are the squadron's aircraft in deployments to Ovda AFB in the second half of 2005.
Photos: Ra'anan Weiss



The *Spearhead* Squadron



The 'Spearhead' squadron traces their origin to December 1947, when the unit was established as an airlift squadron, flying Curtiss C-46 Commando and Lockheed Constellation aircraft from Ekron air field. In its early form, the squadron participated in almost every major operation of Israel's War of Independence. The squadron's aircraft delivered to the IAF its first true fighters, the Avia S-199 from Czechoslovakia and were operated as offhand bombers against the invading Egyptian Army. The squadron was inactivated in May 1949 and its personnel transferred to the newly formed 'Elephant' squadron.

The 'Second Baz Squadron' re-conception began in late 1981, when the 'Knights of the Twin Tail' squadron was nearing full complement operating its 21 'Peace Fox I' F-15A and B aircraft. A second contract designated 'Peace Fox II'



Above: Immediately after 'Operation Peace for the Galilee', the 'Spearhead' squadron separated from its parent squadron, to which it was associated because the June 1982 war commenced as it was forming. The formation team was, from left to right: Ran Granot (senior deputy CO), Noam Canaani, Michael Cohen, Joel Feldschuh (CO), Dudi Lippin and Eitan Remler (junior deputy CO). Behind the aircrew is F-15C no.832 'The 6th of June', the only single-seat F-15 to have a two-word name. The IAF practice was to grant single worded names to single-seat F-15's and two worded names to two-seaters. Of note are the Python 3 adapters that were operational until the end of 1982.

Photo: The 'Spearhead' squadron

was approved by the US Government in 1979 incorporating 9 F-15C and 6 F-15D types. All these aircraft were destined to the new squadron. The nucleus of the new squadron was dependent on personnel from the first IAF F-15 squadron. Aircrews and technical ground crews were to train within the first Eagle squadron. The aircraft and aircrews would initially be part of the parent squadron. The establishment team urged the IAF HQ to activate the new squadron without delay, while the commanders preferred to await additional complement of F-15C/D airframes, planned for delivery by the end of 1982. The result of the differences was a compromise and

the squadron opening ceremony was set to June 6th, 1982.

In the interim, the northern border of Israel was tense with continuous clashes between the IDF and PLO terrorists. On June 5th, 1982, the IDF launched 'Operation Peace for the Galilee' with the IAF prepared to engage the SAF and the Syrian SAM air defense array in Lebanon. Naturally, opening ceremonies were postponed and the squadron fought the war within 'Knights of the Twin Tail' squadron resulting with most of the F-15 aerial victories credited to the first Eagle squadron. Only after SAF activity has dwindled down the squadron was activated in a modest

Above left: The ceremony for the formation of the 'Spearhead' squadron on April 19th, 1982. 'Knights of the Twin Tail' squadron CO Lt.-Col. Moshe Melnik (on left) greeting the first 'Spearhead' squadron CO, Lt.-Col. Joel Feldschuh. Both were members of the first IAF team to attend F-15 conversion training at Luke AFB, Arizona, USA.

Photo: The 'Spearhead' squadron

The first priority of the squadron was to accept its assigned aircraft and hardened shelters. The first three F-15's of the squadron are shown: F-15 no.950 'Two-edged sword', F-15 no.821 'Lammergeyer' and F-15 no.828 'Eagle Owl'. Senior deputy CO Maj. Ran Granot is welcomed by ground personnel (lower left). Of note are the early version of the Python 3 missile adapters. Photo-reconnaissance capabilities were added to aircraft no.950 in 1983 and it was transferred to the 'Knights of the Twin Tail' squadron. The ground personnel of the squadron operated from separate hardened shelters, though officially belonged to the 'Knights of the Twin Tail' squadron.

Photo: Tel-Nof archive



ceremony on June 15, 1982 and declared an operational unit. It should be noted that at this stage the squadron was identified as The 'Second Baz Squadron' or referred to by its number.

The newly formed squadron transferred four of its aircraft to the northern AFB of

Ramat-David and conducted constant patrols over Lebanon, eagerly seeking to encounter the SAF and to credit the squadron with shot down enemy aircraft. On June 22, 1982, the squadron's aircraft were scrambled for their first operational sortie, but did not clash with any MiG's.

First kills

Even though the SAF suffered a major defeat in the first round of hostilities, it continued to launch formations to fighters to the air, trying to disrupt IAF support of ground operations. On June 24, 1982, 'Pungent', a flight of two F-15s of the 'Second Baz Squadron', while on CAP over the Lebanese coast was vectored South-East with instructions to seek out a pair of MiG-23s flying at low altitude. Both flight members detected targets at approximately 20 miles. Number 2 took the leading position since Number 1 lost his lock-on and requested permission to fire, which was initially granted but cancelled. After performing some maneuvering, both F-15s could visually identify their targets at 5 miles range, flying south. 'Pungent 1' regained lock-on on the leading MiG-23, while 'Pungent 2' locked on the second MiG-23. From 2.4 miles, 'Pungent 2' launched an AIM-7. From his position, 'Pungent 1' could observe only "his" MiG and failing to take notice of 'Pungent



Left: Joel Feldschuh and Tzvika Liphshitz returning with F-15D no. 979 from a sortie on June 24, 1982, in which they shot-down two Syrian MiG-23's. This was the third aerial victory of Tzvika Liphshitz with this aircraft. The kill roundel represents a MiG-21 shot-down 2 weeks earlier by Yoram Peled and Zvi Liphshitz.



2' call "number two firing"; he rapidly identified the MiG Pungent 2 fired upon at 800 meters range. 'Pungent 1' maneuvered towards the other MiG, and fired a RAFAEL Python 3 missile. The MiG-23 was in the midst of a left turn when the Python 3 destroyed the aircraft.

The pilot of 'Pungent' 1, guided by his WSO orders, pulled sharply (recording over 10G in the process) behind the remaining MiG and from the range of 1.2 miles fired another Python 3. The missile struck the MiG's tail section that shattered the aircraft.

The squadron's next MiG kill occurred on August 31, 1982, when F-15 number 821, together with an IDF Raytheon MIM-

23B Improved Hawk ground-to-air defense system shot down a MiG-25. The MiG was on a reconnaissance mission over Beirut, surrounded by IDF forces, when it fell into the well-planned ambush.

After 'Operation Peace for the Galilee', when the turmoil at Lebanon faded to a static guerilla ground war, the squadron turned to extend the F-15 capabilities in IAF service, adapting the GBU-15 EO guided bombs. This precision-guided weapon, combined with the range offered by the CFTs and aerial refueling capability offered unprecedented new capabilities for the IAF and Israel policy makers.

Above and top right: On September 8, 1982, IAF Commander Maj.-Gen. David Ivry visited the squadron and joined a flight in F-15D no. 979 with the squadron CO Lt.-Col. Joel Feldschuh. The aircraft is shown above taxiing to its parking point and on top right, both pilots as the canopy opened. Noteworthy is the new Python 3 missile adapter under the right wing pylon, that was not available three months ago during 'Operation Peace for the Galilee'

Photos: Ra'anán Weiss collection



Above: Aircraft no.957 'Skyblazer' towards the end of the 1980's with five kill markings. Until few years ago it was not the practice to mark a shared kill with half a roundel, rather a complete mark. The aircraft is adorned today with 4 1/2 roundels.

Photo: Ra'anana Weiss collection

Aerial mishaps

Maintaining pilot's air combat skills sharp is a challenging mission. On one hand, best training is achieved in the harshest environment with no restrictions, as in actual combat, while on the other hand safety margins must be kept strictly. Major efforts are made to prevent loss of lives and aircraft during training.

IAF air combat training is known for its ferocity, with pilots prepared to reach the limits of aircraft performance in order to position their adversaries within their sights. Unfortunately many accidents occurred during ACM training until appropriate safety margins were determined and enforced upon eager IAF pilots. In fact, all F-15 losses in IAF service occurred during training and not in combat!

The first warning mark for the Israeli pilots occurred on May 1, 1985, and proved the F-15 could fly even with one wing! This event received high exposure when the picture of the wingless F-15 was released after a successful emergency landing.

Two F-15s were conducting CAP training, intercepting four A-4s simulating an attack force. One of the aircraft (F-15D no.957) tracked two of the A-4s and dived to engage them when

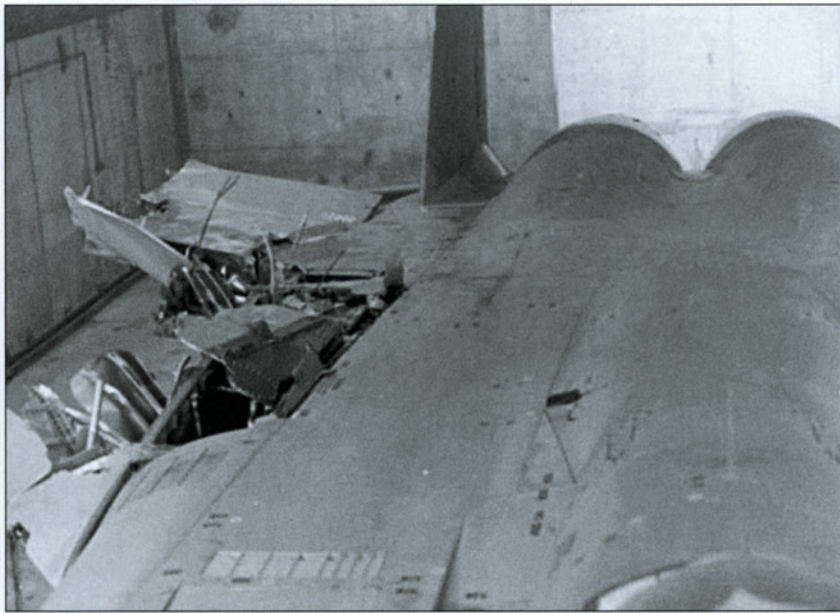
suddenly the crew felt a strong jolt. Assuming they passed through some other participant's slipstream the crew prepared to eject when a large ball of fire, the A-4 that collided with them passed nearby. Only then did the crew realize that the jolt they sensed was a result of a collision with another aircraft. The F-15 then dived from the altitude of 12,000 feet at an angle of 45 degrees down and 60 degrees deflection. After the pilot reconnected the electrical steering he managed to stabilize the aircraft and regain control at an elevation of 4,000 feet. From the aircraft handling the crew could deduce their wing was severely damaged. The fuel flowing from the wing spar / fuselage area obscured the extent of the damage from the aircrew.

Joined by its formation member in close formation, The F-15D turned towards the nearest runway at Ramon AFB and prepared for an emergency landing. The pilot gradually reduced airspeed to realize that the minimum speed in which the aircraft could remain controllable was 250 knots. Touching the runway with its arrestor hook deployed, the aircraft engaged the first cable strung across the runway, but due to the high speed the hook detached from the aircraft. With speed down to 150 knots, the aircrew

Below: F-15D no.957 after the May 1983 accident, in which its right wing detached from the aircraft after colliding with an A-4 during dissimilar air-combat training. The F-15's survivability was demonstrated after the pilot managed to land the aircraft at Ramon AFB.

Photo: The 'Spearhead' squadron





anticipated another deceleration at the second cable mounted at the runway's second third. Past that point, the pilot requested the control tower to deploy the emergency net and applied the braking system despite the aircraft's high speed. The F-15D came to a final stop 10 meters from the deployed net.

The aircraft was taken for repairs and two and half months after the collision, the pilot that landed the F-15D, conducted the first test flight.

When details of the accident reached McDonnell Douglas personnel, they submitted their opinion stating that flying and landing an F-15 without one its wings was aerodynamically impossible. When one of MD's senior officials visited Israel he was asked how much of an F-15's wing could be removed with the aircraft still capable of flying. When the executive answered that third of the wing could be taken off at the most, his hosts presented pictures of F-15 no. 957 after its landing.

The next event associated with training safety wasn't known to the public until recently. During March 1985, two pairs of F-15s conducted

ACM training. The first pair, call-sign 'Blue' was performing CAP while the second pair, call-sign 'Red', was vectored to intercept. 'Blue 1', an F-15D, chased 'Red 2' when 'Red 1' (F-15C no. 519) maneuvered to fire a simulated AIM-7 missile at 'Blue 1' from a range of 1.5 miles, which "missed". At this stage 'Blue 1' maneuvered sharply, pulling 6.5 g's trying to pursue 'Red 2', while 'Red 1' suddenly discovered 'Blue 2' at his back, turned towards him and lost visual contact with 'Blue 1'. Realizing 'Blue 2' was not endangering him, 'Red 1' turned back to follow 'Blue 1', only to find him in head on position, 1000m of range. 'Blue 1' reacted swiftly and pulled hard to avoid the collision while 'Red 1', did not maneuver at all. Fortunately, the aircraft only chafed each other, resulting with 'Red 1' radome tip damaged and 'Blue 1' tail boom RWR antenna turn away.

The investigation revealed that 'Blue 1' WSO had eye contact with 'Red 1' at all times and identified the potential for collision but did not warn his pilot or 'Red 1'. Both pilots situational awareness was less than satisfying.

Above left: The pilot Ziv Nedivi and WSO Gal Yeho'ar after landing the damaged aircraft.

Photo: The 'Spearhead' squadron

Above right: Rear view from above of the extensive damage. Aircraft was towed to a hardened shelter at Ramon AFB.

Photo: Ra'anana Weiss collection

Below: F-15C no. 519 'Eitan' landing at Tel-Nof in the mid 1990's.

Photo: Ofer Zidon collection





Above and right: On April 26, 1983, Defense Minister Itzhak Rabin visited the squadron with Lt.-Gen. Moshe Levi, IDF Chief of the General Staff and IAF Commander Maj.-Gen. Amos Lapidot. Squadron CO Lt.-Col. Joel Feldschuh is shown above providing general information on the squadron and detailing its achievement to date. The presentation took place in a hardened shelter near F-15 no.455. Noteworthy is the Rockwell GBU-15 EO glide bomb under its left wing pylon. Seated from left to right: Lt.-Gen. Moshe Levi, Brig.-Gen. Aher Snir (back row), Itzhak Rabin, Maj.-Gen. Lapidot, Brig.-Gen. Danny Yatom (back row), and Tel-Nof base commander Brig.-Gen. Iftach Spector.

Photo: Tel-Nof archive



Right: One of the squadron two-seaters F-15D no.970 'Morning Star', after a solo flight of a new pilot.

Photo: Tel-Nof archive





The F-15C/D variants of the third contract 'Peace Fox III' began to arrive December 16, 1984. Above is F-15C no.83-0054 that arrived to Tel-Nof together with F-15C no.83-0055. USAF no.83-0054 received IAF no.505 and named 'Nachshon' (Daring or Pioneer) is shown left and below, while no.83-0055 was designated 519 'Eitan' (Strong or Stable). Bottom: F-15C no.519 as an 'Improved Baz' standard during the squadron's deployment to Nevatim AFB on February 2005.

Photos: Above Tel-Nof archive, Left: IAF Magazine, Below: Ofer Zidon collection, Bottom: Ra'anana Weiss





Two F-15D's arrived together with the F-15C's detailed in the previous page, USAF no.83-0063 (bottom right) and USAF no.83-0064 (above). The first received IAF no.223 'Flying Tiger' (though 'Leopard' is the correct translation from Hebrew), as shown below, while the second, no.280 'Explosive Hand' (right). The F-15C/D of 'Peace Fox III' include the antenna radomes of the ALQ-135B internal countermeasures set that are mounted on the fuselage boom-extensions aft of the the vertical stabilizers bases. The antennas are clearly visible on aircraft no.280.

Photos: Tel-Nof archive





Four F-15C's of 'Peace Fox III' landed at Tel-Nof AFB on March 17, 1985.

Following are the IAF numbers and names provided to each aircraft/ USAF number:

- 83-0056 / 525 / Netz (Hawk)
 - 83-0057 / 530 / Chetz (Arrow) ... left photo.

- 83-0058 / 541 / Hawk

- 83-0059 / 552 / Akav (Buzzard)

Photos: Tel-Nof archive



Above: F-15C no.541 taking-off in the late 1980's with a short version of the Westinghouse AN/ALQ-119 ECM pod positioned on the fuselage centerline stores station. The EW systems of the IAF F-15's were rather limited throughout the years, necessitating an external EW pod. The first operational pod was the AN/ALQ-119 and later, the AN/ALQ-131.

Photo: Ra'anana Weiss collection



Right: F-15C no.552 'Akav' (Buzzard) in the late 1980's. F-15C's of 'Peace Fox III' were numbered 5XX.

Photo: Tel-Nof archive

Below: F-15C no.525 'Netz' photographed on August 2005. The aircraft is carrying an IAI ELTA EL/L-8212/22 EW system attached to the forward left Sparrow missile station.

Photo: Ra'anana Weiss





Three F-15C's of 'Peace Fox III' landed at Tel-Nof AFB on April 28, 1985. These were USAF numbers 83-0060, 83-0061 and 83-0062 that received respectively IAF numbers and names 560 'Jupiter', 575 'Mars' and 583 'Golan'. Though aircraft arrived prior to the last aerial combats of the squadron, F-15C/D's of 'Peace Fox III' were not credited with any enemy aircraft shot down.

Photo: Tel-Nof archive





Above: F-15C no.583 'Golan' photographed in the winter of 2005 during a deployment to Nevatim AFB. By that period, all IAF F-15 were upgraded to 'Improved Baz' standard.
 Photo: Ra'anan Weiss

Right: F-15C no.575 'Mars' landing at Tel-Nof AFB during April 2004.
 Photo: Ofer Zidon

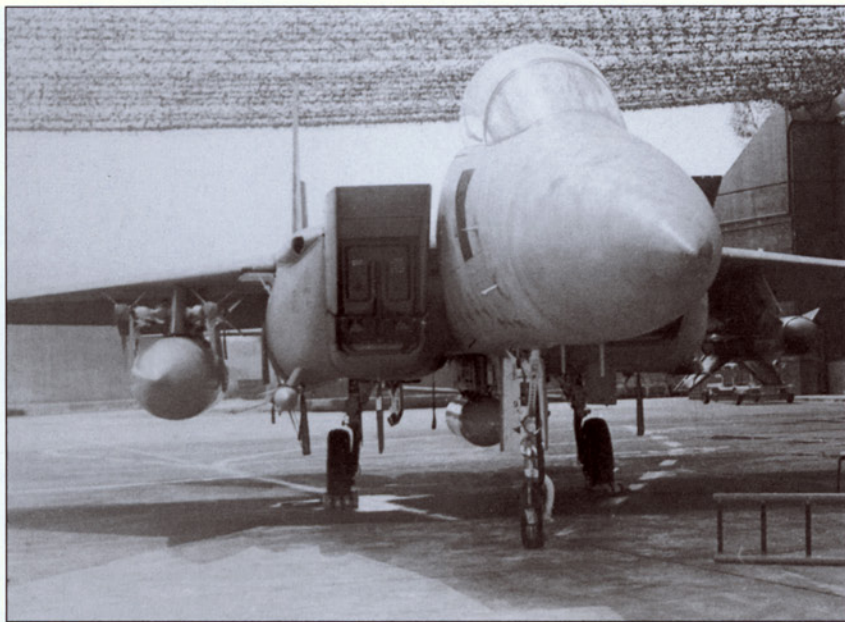
Below: Rare photograph of F-15D no.223 'Flying Tiger' / 'Leopard' shortly after arrival to Israel. Aircraft is taxiing for take-off to a training sortie involving the release of Rockwell International GBU-15 EO guided bombs. The F-15D is carrying two such bombs under the wing pylons and the AN/AXQ-14 data link pod under the fuselage centerline stores station. In addition, two AIM-7 Sparrow missiles are attached to forward CFT stations. F-15D no.223 landed in Israel only on December 16th, 1984 and 9 1/2 months later participated in the attack of terrorist PLO targets in Tunis, releasing a GBU-15 in the operation.
 Photo: Dr. Ran yahalom collection



Fighting terrorism – Operation ‘Wooden Leg,

In September 1985 the war between the PLO and the State of Israel has escalated to an unprecedented level after a series of terror attacks.

On September 22, 1985, a vehicle loaded explosives was revealed in a neighborhood of Jerusalem. The bomb was defused minutes before the car was to explode. On September 26, 1985, a bomb exploded at a bus station near a Hospital in Jerusalem, injuring two people. On the morning of September 25, 1985, three PLO terrorists attacked a small private yacht anchored in the marina of Larnaca, Cyprus. Aboard the yacht were three vacationing Israelis, one woman and two men. In the course of a siege lasting nearly 10 hours, the terrorists murdered all three Israelis in cold blood. The bodies of the victims were found with their hands tied behind their backs and shot several times. The PLO claimed responsibility for



Above: One of the F-15D destined to the attack in Tunis on stand-by near its hardened shelter, armed with a GBU-15 attached to the left wing pylon, data link pod under the fuselage station, two AIM-7 Sparrow missiles, two AIM-9L Sidewinder missiles and a 600 gallon external fuel tank under the right wing pylon.

Photographs on this page: The ‘Spearhead’ squadron



Left: E. and Z. prior to entering the cockpit of the F-15D no.970 with which they have flown to the attack in Tunis. Of note are the erased national insignia and Hebrew aircraft name.

The pilot Iftach Mor in the front seat and WSO E. perform last minute checks in the cockpit of F-15D no.280. Iftach Mor was killed on April 1, 1987 with aircraft no.223.

the first two attacks, while reports indicated that the Cyprus attack was carried out by “Force 17”, the personal bodyguard unit of Yasir Arafat, the leader of the PLO. These events concluded a 45 days period during which 32 PLO terrorist attacks were held against Israeli civilians, resulting in eight murdered people and 25 wounded. The savage attack at Larnaca convinced the Israeli government it was time to take some serious measures against the PLO, especially when considering the Israeli withdrawal from Lebanon only a few months earlier after the IDF attacked numerous PLO installations in that country.

The IDF was ordered to suggest the cabinet alternative PLO targets to be attacked. The suggested targets located by IDF intelligence were different not only by location, but also by the means of attack. Three optional targets were discriminated and one of them, destined for the ‘Second Baz Squadron’, was the PLO headquarters located at Hammam-al-Shat, a vacating area south of Tunis. The squadron was chosen for this target





Above right: A. and G. next to the GBU-15 they released in the attack in Tunis with F-15D no.450.

Photographs on this page: The 'Spearhead' squadron



Above left: D., the WSO of the aircrew of F-15D no.957 examining the GBU-15 prior to take-off. A technical failure that occurred after the bomb release, prevented guidance and caused the GBU-15 to miss its designated target.

to insure an accurate and direct strike, employing the squadron capabilities with the Rockwell GBU-15 optically guided bomb. A day after the deadly attack at Larnaca, the PLO HQ at Tunis was chosen by the Israeli cabinet as the target, hoping to strike the commanding branch of the PLO at a location considered immune from Israeli reach due to the long range and political restrictions. The 'Spearhead' squadron officers began planning the operation, receiving available intelligence from various sources, and the operation, coded "Wooden Leg", began to materialize.

Unlike in the Lebanese Theatre, the main challenge the planners had to confront with was not enemy air defense, nor fighter opposition. For

this operation to succeed, it was crucial to attack by surprise and to only strike the target, avoiding the surrounding civilian installations. To assure this, the planning team considered all the navies and even European air arms which might suspect the Israeli aircraft while en-route and compromise the element of surprise. The following day, the squadron conducted a simulated flight with certain buildings at the shore city of Ashkelon in southern Israel simulating the target for its resemblance of the actual target. The plan called for 6 F-15Ds from the 'Second Baz Squadron', each armed with a single GBU-15 and 2 aircraft from 'Knights of the Twin Tail' squadron each hauling six Mk 82 bombs. The attacking formation would

Right: F-15D no.957 'Skyblazer' also participated in the operation. Of note is that the kill roundels were not covered with paint. Six weeks after the attack in Tunis, this aircraft shared an aerial kill of a Syrian MiG-23. A second MiG-23 was also shot down on that engagement.



Below: F-15D no.970 taxiing for take-off. AIM-9L Sidewinder air-to-air missiles were chosen due to their reduced weight and drag, compared to the larger and heavier more advanced Python 3.

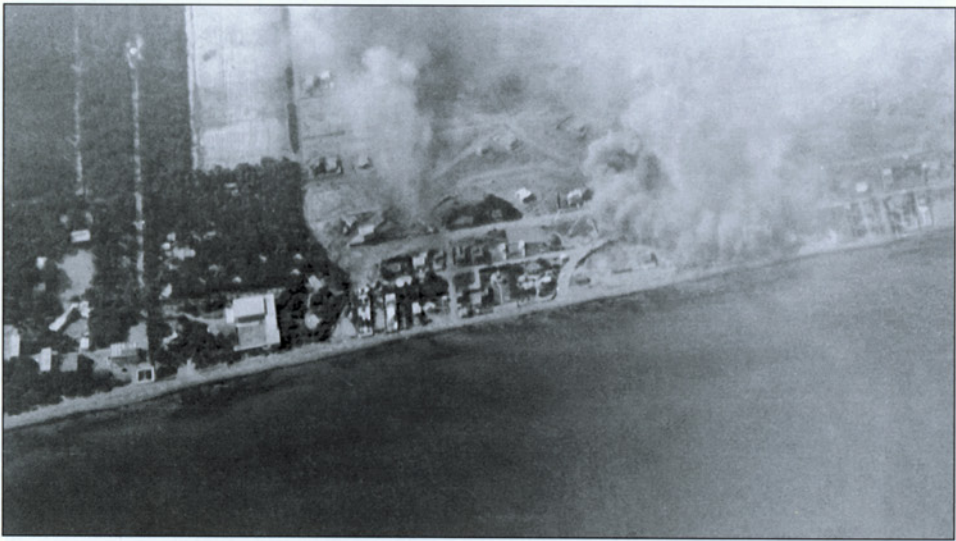
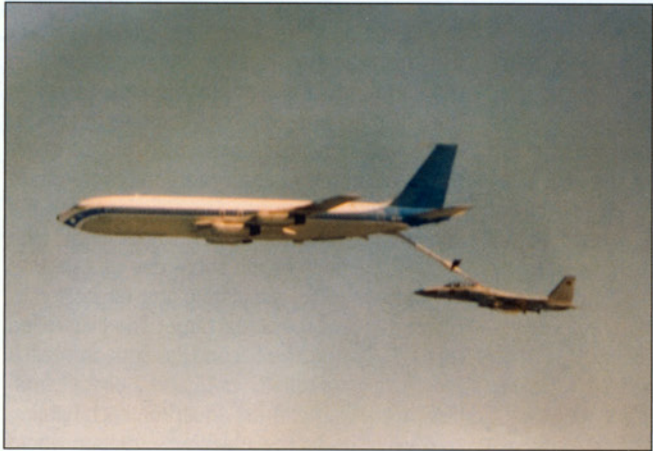


be accompanied by two 707 tankers providing the huge amount of fuel consumed by the F-15s, and one 707 C&C aircraft, as Tunis was out of Israeli ground control coverage. Two replacement F-15s from the 'Knights of the Twin Tail' squadron would fly with the formation up to the PNR (Point of No Return). The TOT (Time Over Target) was set to 11:00 hours local, estimating that by then most PLO operatives and commanders would be at their offices.

On October 1, 1985, at 08:06' ten heavily laden F-15s took off from Tel-Nof, AFB while two 707 tankers and one 707 C&C aircraft departed



Left: Two of the aircraft in the 'last chance' point prior to take-off.
 Below: Two of the aircraft during air-refueling from a Boeing 707 Re'em (Ram) tanker, on-route to Tunis.
 Photographs on this page: The 'Spearhead' squadron



Left and below: Targets at Hamam-a-Shatt on the Tunisian coast being hit by the GBU-15's. Photographed by M., one of the WSO's of the mission.





Above: Three F-15's in close formation on-route back to Israel.

Photographs on this page: The 'Spearhead' squadron

Right: One of the aircraft photographed from below. Of note is the missing GBU-15 from the left wing pylon.



Below: Two minutes prior to landing at Tel-Nof AFB (runway is clearly visible). The aircraft perform a fly-by over the base.



F-15D (80-0133) No. 957, Spearhead squadron, 1985

This profile is an exact illustration of IAF F-15D no.957 on-route to Tunis, with national IAF, squadron insignia and aircraft's name obscured with Brownish waterbased paint.



from Lod AFB. The F-15s and the tankers climbed to higher elevations to avoid civilian traffic routes. The long flight to Tunis, located 1,280 miles away has begun.

At 640 miles away from Israel, above the Mediterranean Sea, two unmarked IAF Boeing-707 tankers were to rendezvous with the F-15s. Preferring to reserve their precious fuel than to arrive exactly on time, the F-15s were a few minutes late to meet the tankers. The two tankers flew with the F-15s for another 350 miles, constantly topping their fuel tanks. When reaching the 1000 miles mark, one tanker returned to Israel, accompanied by the two replacement aircraft. As the mission planners had envisioned, this small formation was intercepted by a British F-4 taking off from Cyprus, but this event occurred too late to compromise the mission.

While preparing for the strike five minutes away from the target, the crew of one aircraft detected a malfunction in their bomb and had to abort, so the flight leader had to change the pre-set order of attack.

The attack comprised two waves, the first included three GBU-15 armed aircraft, each dropping a single bomb and the second consisted of two GBU-15 armed aircraft and the two aircraft carrying MK.82s iron bombs. Of the total five GBU-15 bombs dropped, four guided perfectly and accurately struck the designated

F-15C (83-0057) No. 530, Spearhead squadron, 1985

Even though 'Knights of the Twin Tail' aircrews participated in the strike against PLO targets in Tunis, the F-15's were 'Spearhead' squadron aircraft, including aircraft no.530 and 840. Armament of these aircraft consisted of six-500lbs. Mk-82 iron bombs on a MER attached to the fuselage centerline stores station.



targets while the 6th unit failed to guide. The 'Knights of the Twin Tail' squadron aircraft scored perfect hits with their iron bombs.

After releasing their ordnance, the F-15s returned to escort the tanker and command ship and together commenced the long return flight. Three hours later the aircraft landed back at their AFBs, learning that the IDF spokesman already confirmed to the world about Israel's latest act in its war against terrorism.

Much to the dismay of Israel, The UN security council has accepted the Tunisian complaint about the "Israeli aggression" against the "home to Tunisian families and a small number of Palestinian civilians", probably the Tunisian label for a terrorist camp located in the heart of a civilian area. The US, which pressed the Tunisian government to receive the PLO in 1982 felt it could not veto this one-sided resolution and had to abstain.



Left: Avner Naveh in F-15 no.840 returning from a sortie in which he shot down a SAF MiG-23 and shared another aerial victory of another MiG-23 with aircraft no.957.

Photos in this page: Ra'anan Weiss collection

Final air to air kills

After the Syrian Air Force defeat over Lebanon, the IAF had exclusive control of the Lebanese sky. Every Syrian attempt to intervene was quickly suppressed by the IAF. Taking advantage of Syrian assets proximity to the long border between Lebanon and Syria, the IAF began a series of oblique photography reconnaissance missions along the border, gathering invaluable data about Syria. Considering the Lebanese airspace safe from Syrian fighters, the IAF did not rate the flights as risky. Naturally, The Syrians opposed these flights and by late 1982 a pair of new MiG-23s, supplied by the USSR, almost shot down two Israeli RF-4Es flying such a mission, before the escorting fighters could intervene.

Identifying the Syrian intentions, the IAF began monitoring its RF-4Es missions closely. On November 19, 1985, two 'Second Baz' squadron' F-15s (numbers 957 and 840) were escorting an RF-4E reconnaissance mission when a pair of Syrian MiG-23MLs were detected taking off from an airfield in Syria. Fearing to repeat the nearly disastrous missions from 1982, the ground controllers immediately vectored the escorting F-15s toward the MiGs,

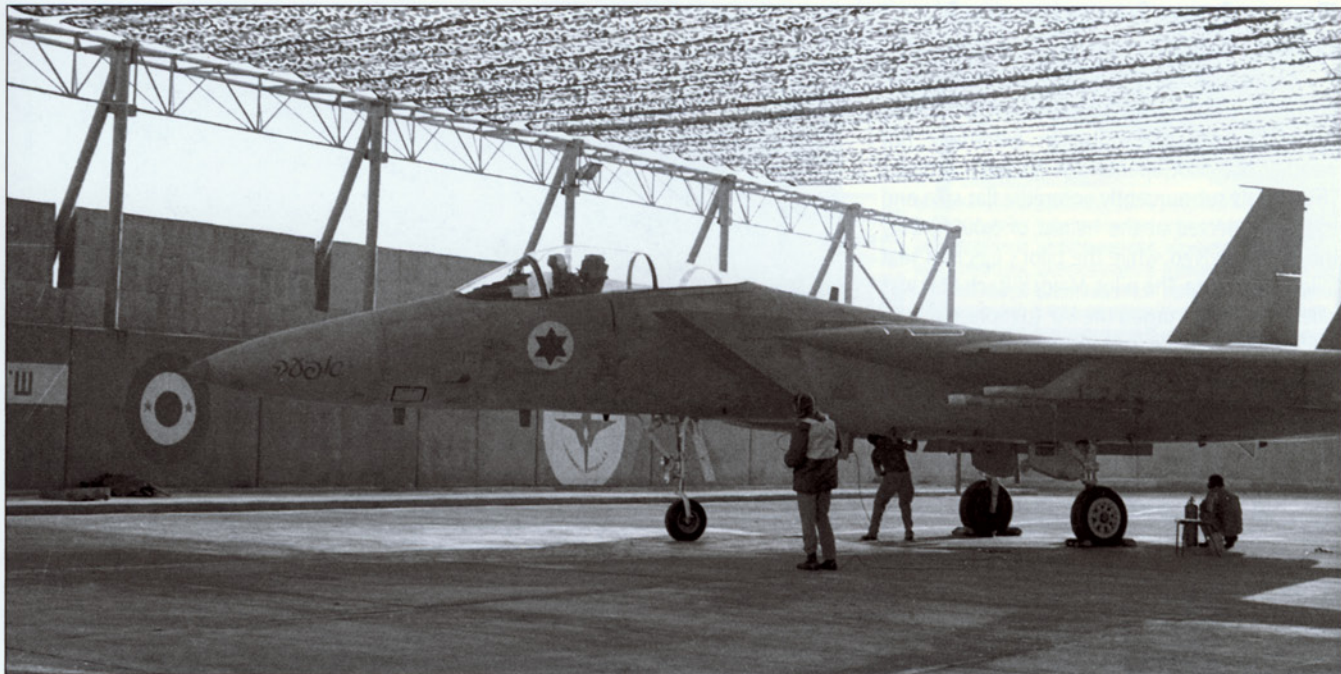
still flying at the heart of the Syrian area. Each of the F-15s quickly destroyed one MiG with a RAFAEL Python 3 missile, marking the last IAF kills over Lebanon.



Left: Avner Naveh (on left) during an initial debriefing with the base commander Lt.-Col. Giora Rom.

Below: Avner Naveh descending the ladder. The four kill roundels relate to two aircraft shot-down by this aircraft and another two by the squadron.





Above: F-15C 'Viper' being checked by ground crew near its hardened shelter.

Photo: Tel-Nof archive

Right: F-15C 'Peten' (Desert Cobra) taxiing for take-off to a long range CAP sortie in the late 1980's. Payload consists of three 600 gallon external fuel tanks, four RAFAEL Python 3 and four AIM-7 Sparrow air-to-air missiles.

Photo: IAF Magazine



Sharpening the Tip

During 1992 the AGM-142 Popeye long range attack missile became operational with the squadron. This missile, developed and manufactured locally by RAFAEL has extended the capabilities offered by the gliding GBU-15 EO bomb, especially in the area of stand-off attack. The squadron was not the first IAF unit to operate this missile: the 'Hammers' squadron from Ramat-David had introduced this weapon into service with their F-4Es, but when the Phantoms reached the 25 years of service, the 'leadership'

of operating the Popeye was transferred to the 'Second Baz Squadron'. Combined with the range offered by the CFT's, the Popeye has transformed the F-15D into one of the world's best fighter-bombers, capable of attacking at long range from stand-off distance and protect itself, a capability offered at the time only by the USAF F-15E. After receiving this weapon system the squadron's name was changed appropriately to the 'Spearhead' squadron. The squadron was also the first to adapt the 'Improved Baz' in November 1998, placing it literally at the tip of the IAF spear.

F-15C (80-0129) No. 840, Spearhead squadron, 1988

F-15C no.840 in its glory days adorned with six aerial combat kill roundels. These markings were applied for many years even though the exact score was 3 1/2. Half a kill was regarded as a complete score while two kills were allocated correctly to 'Knights of the Twin Tail' squadron.



Squadron losses and accidents

April 1, 1987 – F-15D no.223, 'The Flying Tiger' (83-0063) was lost 19 during an ACM training sortie. While maneuvering in extremely hot weather, the pilot opened the aircraft's airbrake. The aircraft subsequently entered a flat spin and the crew ejected at the height of 6,000ft. Only the WSO survived, while the pilot's ejection seat failed to operate. The pilot, Major Yiftach Mor was killed. This event urged the IAF to replace the IC-7 ESCAPAC ejection system with the advanced ACES-II ejection seats.

February 10, 1991 – F-15C no.821, 'Vulture' (80-0126). Major Israel Arnan was flying a helmet mounted sight test mission. Due to an unknown reason the pilot had to eject. Unfortunately the connection between the helmet and the aircraft



Above and left: F-15D no.223 exiting its hardened shelter area and landing during a 'combat day' training in 1986. The aircraft entered service on December 16, 1984 and crashed in an accident on April 1st, 1987. During its service the aircraft was upgraded to carry the GBU-15 and participated in the 1985 strike in Tunis. Major Iftach Mor that was killed with this aircraft also was part of the 1985 attack, piloting F-15D no.280.

Photos: Ra'anani Weiss collection



Far left: The wreckage of F-15D no.223.

Photo: IAF

was too tight and while ejecting the pilot's neck was broken and he didn't survive the ejection.

April 4, 1991 – F-15C no.802, 'Panther' (80-0122). This aircraft was almost written off after a training sortie. The pilot was flying his first solo flight on the F-15. While approaching landing, the main landing gear indicator remained red, indicating the landing struts did not lock in full down position. The pilot already deployed the arrestor hook when he initiated a go-around. In its extended position, the hook trapped the arresting cable and the aircraft struck the runway. After a two year overhaul, the aircraft returned to operational service.



Left: A pilot after a first solo flight on F-15C no.821 'Lammergeyer'. Lt. Ornan Israeli was killed with this aircraft on February 10th, 1991. This is the only F-15C written-off in an accident to date.

Photo: 'Spearhead' squadron

August 10, 1995 – F-15D no.965, 'The Firebird' (80-0134). Aircraft lost due to bird strike over Zin wilderness in Southern Israel. Both crew members, Captain Yaron Vivante and Captain Ronen Lev were killed.



Above: F-15D no.965 'Phoenix', preparing to exit its hardened shelter. In an accident that occurred on August 10, 1995, Capt. Ronen Lev and Capt. Yaron Vivante were killed during a low level flight, when a flock of Storks stroked the aircraft. Aircraft no.137 was named 'Yaron and Ronen' in their memory also crashed on January 19th, 1997, with aircrew parachuting to safety.

Photo: Ra'anana Weiss collection



Right: F-15C no.802 'Panther' after a landing accident dated April 4, 1991. The aircraft returned to operational status and later upgraded to 'Improved Baz' standard.

Photo: Dr. Ran yahalom collection

Below: F-15B no.137 'Yaron and Ronen' in flight over Samaria. The aircraft crashed on January 19, 1997.

Photo: Dr. Ran yahalom collection



January 19, 1997 – F-15B no.137, 'Silver Arrow' (74-0137). The aircraft nickname was changed to "Yaron Ronen" after the crew of 80-0134 died in a crash two years earlier. The aircraft was lost during ACM training after entering a spin. Both aircrew members ejected safely

March 1, 1998 – F-15B no.142, 'Beam of Light' (73-0112). Aircraft crashed during low level training sortie above the northern Samaria area. Due to severe weather conditions, the crew failed to identify a communication antenna which was unmarked on their maps. Both crew members, Major Uriel Kolton and Captain Uri Manor were killed.



Above: F-15B no.137 'Yaron and Ronen' before a training flight. Prior to the accident of aircraft F-15D no.965 'Phoenix', in which Capt. Ronen Lev and Capt. Yaron Vivante were killed, the aircraft was named 'Silver Arrow' and changed to 'Yaron and Ronen' after the accident.
Photo: The 'Spearhead' squadron



Left: F-15B no.142 'Beam of Light' during a ground exhibition at Tel-Nof on Independence Day of 1997. During a training sortie on March 1, 1998 this aircraft collided with a communication antenna on Mount Ebal, Samaria. Maj. Uri Kolton and Capt. Uri Manor were killed.
Photo: Yoav Efrati



Above: 'Spearhead' squadron F-15C no.505 'Nachshon' (Daring or Pioneer) and 'Knights of the Twin Tail' squadron F-15A no.669 'Lahak' ('Squadron') on exhibition in the mid 1980's.
Photo: Ra'anana Weiss collection



Left: F-15C no.505 landing at Tel-Nof AFB during a 1986 'combat day'.
Photo: Ra'anana Weiss collection



Above: F-15C no.810 'Peten' (Desert Cobra) in a ground exhibition during an exhibition in the mid 1980's. Aircraft is configured for air-superiority missions with a complete payload consisting of four Python 3, four AIM-7 Sparrow missiles and a 600 gallon external fuel tank.

Photo: Ofer Zidon collection

Right: F-15C no.583 'Golan' parked on the tarmac near the squadrons hardened shelters.

Photo: Dr. Ran Yahalom collection



Below: F-15C no.552 'Akav' (Buzzard) taxiing toward the take-off runway prior to a CAP sortie, armed with Python 3, AIM-7 Sparrow missiles and 600 gallon external fuel tanks under the wing pylons.

Photo: Ofer Zidon collection





Above: 'Spearhead' squadron F-15C no.810 'Peten' (Desert Cobra) moments before take-off for a training sortie with 'Knights of the Twin Tail' squadron F-15A no.681 'Romach' (Spear).

Photo: IAF Magazine



Far Left: Aircraft no.957 being towed within the base. Of note is the left wing of a Syrian Air Force MiG-23 in which Maj. Mohammed Bassem Adel defected to Israel on October 11th, 1989.

Photo: IAF Magazine



Left: VIP visit from Africa to Tel-Nof AFB. Base commander Brig.-Gen. Giora Rom on the ladder about to provide explanations on the cockpit of F-15C no.541 'Hawk'.

Photo: Ofer Zidon collection

Below: F-15C no.583 'Golan' taxiing on an inner base runway.

Photo: IAF Magazine





Above: 'Spearhead' squadron F-15C no.802 'Panther' in low level flight in the over Jerusalem, the capital of the State of Israel, in the mid 1980's. The Knesset, the Israeli Parliament can be seen in the top left segment of the photograph.

Photo: IAF Magazine

Right: F-15C no.828 'Desert Owl' being checked by ground personnel in the 'last chance' point. Approaching this position is another F-15.

Photo: IAF Magazine



Below: F-15C no.840 'Commando' over Mount Carmel in northern Israel, armed with Python 3 and AIM-7 Sparrow air-to-air missiles.

Photo: IAF Magazine





Left: The late Israeli Prime Minister and Defense Minister Itzhak Rabin during a visit to Tel-Nof AFB. 'Spearhead' squadron F-15C no.560 'Jupier' can be seen in back round.
Photo: Ofer Zidon collection



Below: On August 3rd, 1994 King Hussein of Jordan performed a symbolic and historical flight over Israel. The 'Spearhead' squadron was chosen to escort the Lockheed Tristar with three F-15 'Baz'. Shown is F-15C no.575 'Mars' in complete air superiority configuration. The squadron CO, Lt.-Col. G., piloted aircraft.
Photo: Ofer Zidon collection



Left: F-15C no.583 'Golan' landing after a training sortie. In the mid 1990's the 'Turkey Feathers' of the exhaust nozzles were removed from the F-15 fleet for fuel saving purposes and are installed only when long range flights are conducted.
Photo: Ofer Zidon collection

Right: F-15D no.280 'Explosive Hand' in an interesting armament configuration that includes two AIM-7 Sparrow missiles in the aft fuselage stores stations and two AIM-9L Sidewinder missiles on the wing pylon inner missile adapters. Noteworthy are the antenna radomes of the ALQ-135B internal countermeasures set that are mounted on the fuselage boom-extensions aft of the vertical stabilizers bases.

Photo: Dr. Ran Yahalom collection



Bottom: A routine flight of two 'Spearhead' squadron F-15's. aircraft no.706 received the name 'North Star' (Polaris).

Photo: Shay Rahamim

F-15C (83-0062) No. 583, Spearhead squadron, 1996

Aircraft in a ground attack configuration. Mk.-84 2,000lbs iron bombs are attached directly to the wing pylons while Python 3 and AIM-7 missiles are carried along with a 600 gallon external fuel tank. This configuration saw action in operation 'Grapes of Wrath' in the summer of 1996.





Above left: F-15B no.111 'Spearhead' in last minute preparations prior to a training sortie in the late 1990's. The aircraft is now operational in the 'Knights of the Twin Tail' squadron. Above: Aircraft numbers 957 and 812 parked on the tarmac in the vicinity of their hardened shelters.

Photos: Dr. Ran Yahalom collection

Left: F-15C no.530 'Arrow' parked on the tarmac near its hardened shelter with its cockpit covered for heat protection purposes. The EHUD ACMI system (Air Combat Maneuvering Instrumentation) pod is also shielded from the sun.

Photo: Ofer Zidon collection

Below: Three aircraft of the squadron prior to take-off. Closest is F-15B no.111 'Spearhead', to the left is F-15A no.317 'Lavie' (Young Lion) and behind them, F-15C no.818 'Tamnon' (Octopus). Aircraft no.317 was withdrawn from service on 2001 being the only USAF surplus aircraft to have served for almost ten years in the IAF.

Photo: IAF Magazine





Top left: Aircraft no. 706 'North Star' parked and ready for a sortie. Payload consists of three water bombs attached to the aircraft's three pylons.

Photo: IAF Magazine

Top right: F-15C no. 541 'Hawk' taking-off to a training sortie with a payload consisting of training Python 3 missiles and a short version of the AN/ALQ-119 ECM pod.

Photo: IAF Magazine

Above left: Pre-flight check by the pilot of F-15D no. 965 'Phoenix' of the powerplants nozzles.

Photo: IAF Magazine

Above right: Personnel of the maintenance squadron cleaning an F-15.

Photo: IAF Magazine

Upper right: The AN/ALQ-119 ECM pod was in operation throughout the 1980's. From the early 1990's the AN/ALQ-131 pod entered service in an experimental status, with insufficient results. F-15 no. 715 'Wind Chart' landing with an AN/ALQ-131 pod under the fuselage. Few years ago the IAF-15 'Baz' fleet began operating with the IAI ELTA EL/L-8212/22.

Photo: IAF Magazine

Right: IAF Commander Maj.-Gen. Eitan Ben-Eliyahu after a flight at the 'Spearhead' squadron. Aircraft no. 802 'Panther' is parked on tarmac. Maj.-Gen. Eitan Ben-Eliyahu was the first commander of the 'Knights of the Twin Tail' squadron. He was IAF commander between July 1996 and April 2000 and was replaced by Dan Halutz, today the IDF's Chief of the General Staff.

Photo: IAF Magazine





Above: Aircraft no.957 'Skyblazer' taxiing in Tel-Nof AFB.

Photo: IAF Magazine



Left: F-15C no.812 'Viper' parked on the tarmac near its hardened shelter with its canopy covered for heat protection purposes.

Photo: Ofer Zidon collection

Below: Aircraft no.280 'Explosive Hand' lands at Ovda AFB during a deployment of the squadron in the autumn of 1998. IAF's 50th anniversary emblem is clearly seen on the vertical tailplane. For unknown reasons the aircraft number and name were painted Light Blue and can not be distinguished on the Grey back round. The aircraft's payload is an AN/ALQ-131 ECM pod.

Photo: IAF Magazine





Above: Aircraft no.541 'Hawk' taking-off to a training sortie at Ovda AFB in the autumn of 1998.

Photo: IAF Magazine



Right: F-15D no.970 'Morning Star' lands at Ovda AFB.

Photo: IAF Magazine

Below: Aircraft no.519 'Eitan' in the final landing run at Ovda AFB. Noteworthy is the enlarged IAF roundel on the vertical tailplane for long-range identification purposes. An AN/ALQ-131 ECM pod is attached to the fuselage store station.

Photo: IAF Magazine





Above: F-15C no.541 'Hawk' taking-off at Ovda AFB in 1998. Of note is the AN/ALQ-131 ECM pod.

Photo: IAF Magazine



Left: Aircraft no.530 'Arrow' lands at Ovda AFB.

Photo: IAF Magazine

Below left: F-15A no.317 'Lavie' landing at Tel-Nof AFB. This is one of the USAF surplus aircraft acquired at low cost. As it was not upgraded to 'Improved Baz' standard, it was withdrawn from service and flown to Ovda AFB. Some sections were removed from the aircraft but it was neglected since as evident in the lower right photo.

Photos: Ra'anana Weiss





Above: Aircraft no.706 'North Star' during a ground exhibition at Tel-Nof in 1998 Independence Day. IAF's 50th anniversary emblem is at the top of the vertical tailplane, while the squadron insignia was lowered. Only few aircraft were painted in this manner.

Photo: Ra'anana Weiss

Right: F-15C no.519 'Eitan' lands at Ovda AFB. Clearly visible are the 2 meter diameter enlarged IAF roundel on the wings.

Photo: IAF Magazine



Below right: F-15D no.840 'Commando' with the incorrect number of kill roundels applied, as it appeared in the 80's and 90's. Below left: The aircraft as it appears today. With 3 1/2 kill markings and name applied further aft.

Photos: IAF Magazine and Ra'anana Weiss



F-15D (80-0133) No. 957, Spearhead squadron, 2006

This aircraft is for a long-range ground attack mission with a pair of RAFAEL AGM-142 Popeye missiles under its wing pylons, data link pod on the fuselage store station and four AIM-7 Sparrow missiles attached to the CFT hardpoints.



Left: Aircraft no.575 'Mars', parked on the tarmac on a winter day. Note the rainbow.

Photo: Ra'anana Weiss collection



Left and above: 'Spearhead' squadron aircraft in routine training sorties. Above left is aircraft no.715 with training 'Popeye' missiles.

Photos: Ra'anana Weiss collection



Photos in this page: IAF aircraft no.111 (USAF 73-0111) and no.715 (USAF 90-0277) in training flights. Though both are two-seaters operating in the same squadron, their production blocks are far apart, Block 8 and Block 50, respectively, and were manufactured in a difference of 17 years. The early block aircraft are not capable of CFT's attachment. Photos: Ra'anan Weiss collection







In 2002 the 'Spearhead' squadron celebrated 20 years to its formation in the F-15 era, with a cross country flight of two F-15D's numbers 701, with RAFAEL AGM-142 Popeye missiles and 715, with air-to-air missiles. On this page flight is over the Dead Sea, Massada and other parts of Israel.

Photos: 'Spearhead' squadron





In 2002 and 2004 representative aircraft from the IAF three F-15 squadrons deployed to the USA to participate in 'Red Flag'. Noteworthy are the enlarged IAF roundels on aircraft no. 701, applied since the deployment to Poland for the symbolic fly-over the concentration and death camps of Auschwitz-Birkenau.

Photos: Ra'anana Weiss collection







In the beginning of April 2004, 'Spearhead' and 'Knights of the Twin Tail' squadrons deployed to Poland for flight demonstration flights at Radom-Sadkow Polish Air Force base and the symbolic fly-over Auschwitz-Birkenau.

F-15's numbers 701, 706 and 715 are shown in flight and in ground exhibitions. Two of the aircraft carried RAFAEL AGM-142 Popeye training missiles.

Photos: Ra'an'an Weiss collection







'Spearhead' squadron aircraft during a deployment to Nevatin AFB in February 2005.

Aircraft are rotated between squadrons in accordance to their missions and tasks.

Photos in these pages: Ra'anan Weiss









In the beginning of August 2005 the squadron deployed to Ovda AFB for advanced training with the aggressor 'Flying Dragon' squadron re-activated shortly before this period and with the 'Phoenix' squadron.

Photos: Ra'anana Weiss





Routine training day at Tel-Nof AFB. The 'Spearhead' squadron conducts both air-to-air combat and ground attack training, with the RAFAEL Popeye missiles.

Photos: Ra'anana Weiss





Kill Board of "Knights of the Twin Tail" squadron

Aircraft Type	Aircraft Number	Date	Kill	Weapon	Pilot
F-15A	663	27/6/79	MiG-21	Python 3	Major Moshe Melnik
F-15B	704	27/6/79	MiG-21	AIM-7 Sparrow	Major Joel Feldschuh
F-15A	689	27/6/79	MiG-21	Gun	Lt. Colonel Eitan Ben Eliyahu
F-15A	672	27/6/79	MiG-21	AIM-9 Sidewinder	Major Yoram Peled
F-15A	695	24/9/79	MiG-21	Python 3	Major Avner Naveh
F-15A	695	24/9/79	MiG-21	Gun	Major Avner Naveh
F-15A	676	24/9/79	MiG-21	AIM-7 Sparrow	Captain Dadi Rosenthal
F-15A	692	24/9/79	MiG-21	AIM-9 Sidewinder	Captain Israel (Relik) Shafir
F-15A	696	24/8/80	MiG-21	AIM-7 Sparrow	Captain Ilan Margalit
F-15A	695	31/12/80	MiG-21	Python 3	Captain Yoav Stern
F-15A	646	31/12/80	MiG-21	AIM-9 Sidewinder	Captain Yair Rachmilevich
F-15A	672	13/2/81	MiG-25	AIM-7 Sparrow	Lt. Colonel Benjamin Zin (Zinker)
F-15A	673	29/7/81	MiG-25	AIM-7 Sparrow	Captain Saul Simon
F-15A	658	7/6/82	MiG-23	Python 3	Major Ofer Lapidot
F-15D	957	8/6/82	MiG-21	AIM-7 Sparrow	Captain Saul Schwartz & Captain Reuven Solan
F-15A	686	8/6/82	MiG-21	AIM-7 Sparrow	Captain Yoram Hofman
F-15C	818	8/6/82	1/2 MiG-23	AIM-7 Sparrow	Captain Saul Simon (with aircraft 832)
F-15C	832	8/6/82	1/2 MiG-23	AIM-7 Sparrow	Captain Dadi Rosenthal (with aircraft 818)
F-15A	684	9/6/82	MiG-23	AIM-7 Sparrow	Captain Ronen Shapira
F-15A	658	9/6/82	MiG-23	AIM-7 Sparrow	Captain Gil Rapaport
F-15C	802	9/6/82	MiG-23	AIM-7 Sparrow	Lt. Colonel Moshe Melnik
F-15C	802	9/6/82	MiG-21	Python 3	Lt. Colonel Moshe Melnik
F-15A	646	9/6/82	MiG-23	Python 3	Captain Avi Maor
F-15A	646	9/6/82	MiG-21	Gun	Captain Avi Maor
		9/6/82	MiG-23	Crashed into the ground	Knights of the Twin Tail squadron
		9/6/82	MiG-23	Crashed into the ground	Knights of the Twin Tail squadron
F-15A	695	9/6/82	MiG-21	AIM-7 Sparrow	Captain Oran Hampel
F-15A	684	9/6/82	MiG-21	AIM-7 Sparrow	Captain Yoram Peled
F-15A	684	9/6/82	MiG-21	Python 3	Captain Yoram Peled
F-15A	686	9/6/82	MiG-21	Python 3	Captain Ronen Shapira
F-15D	957	10/6/82	MiG-23	AIM-7 Sparrow	Major Avner Naveh & Captain Michael Cohen
F-15D	957	10/6/82	MiG-23	Python 3	Major Avner Naveh & Captain Michael Cohen
F-15D	957	10/6/82	MiG-21	Python 3	Major Avner Naveh & Captain Michael Cohen
F-15C	848	10/6/82	Gazel	Python 3	Captain Ziv Nadivi
F-15C	840	10/6/82	MiG-23	Python 3	Lt. Colonel Benjamin Zin (Zinker)
F-15C	828	10/6/82	MiG-23	Python 3	Major Gil Rapaport
F-15C	802	10/6/82	MiG-23	Python 3	Captain Noam canaani
F-15C	802	10/6/82	MiG-23	Python 3	Captain Noam canaani
F-15B	708	10/6/82	MiG-21	Python 3	Captain Saul Schwartz & Captain Uzi S.
F-15C	848	10/6/82	MiG-21	Gun	Captain Yoram Hofman
F-15D	955	10/6/82	MiG-21	Python 3	Major Micki Lev
F-15D	979	10/6/82	MiG-21	Python 3	Major Yoram Peled & Major Zvi Liphshitz
F-15A	667	10/6/82	MiG-21	Python 3	Lt. Colonel Yftach Shadmi
F-15A	678	11/6/82	MiG-23	AIM-7 Sparrow	Major Yoram Peled
F-15A	678	11/6/82	MiG-23	AIM-7 Sparrow	Major Yoram Peled
F-15C	840	11/6/82	MiG-21	Python 3	Lt. Colonel Yftach Shadmi
F-15A	646	11/6/82	MiG-21	Python 3	Major Ofer Lapidot
F-15B	704	11/6/82	MiG-21	Python 3	Major Saul Simon & Captain Amir Chodorov

Kill Board of "Spearhead" squadron

Aircraft Type	Aircraft Number	Date	Kill	Weapon	Pilot
F-15D	979	24/6/82	MiG-23	Python 3	Lt. Colonel Joel Feldschuh & Major Zvika Liphshitz
F-15D	979	24/6/82	MiG-23	Python 3	Lt. Colonel Joel Feldschuh & Major Zvika Liphshitz
F-15C	821	31/8/82	1/2 MiG 25	AIM-7 Sparrow	Captain Saul Schwartz (with Hawk missile)
F-15C	840	19/11/85	MiG-23	Python 3	Lt. Colonel Avner naveh
F-15C	840	19/11/85	1/2 MiG-23	Python 3	Lt. Colonel Avner naveh (with aircraft 957)
F-15D	957	19/11/85	1/2 MiG-23	Python 3	Captain Yuval Ben-Zur & Major Ofer Paz (with aircraft 840)



Walk Around

Front Cockpit

Front cockpit of an "Improved Baz"

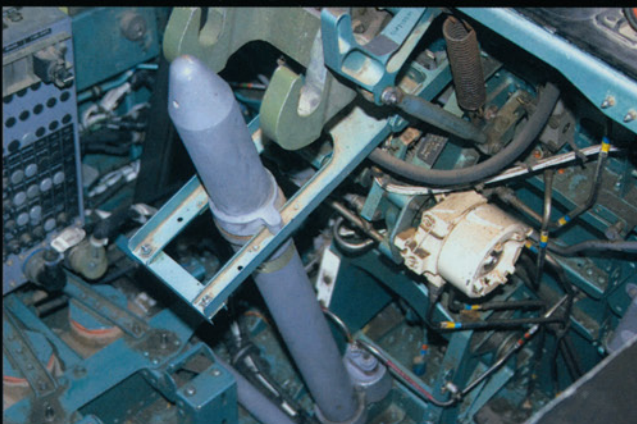


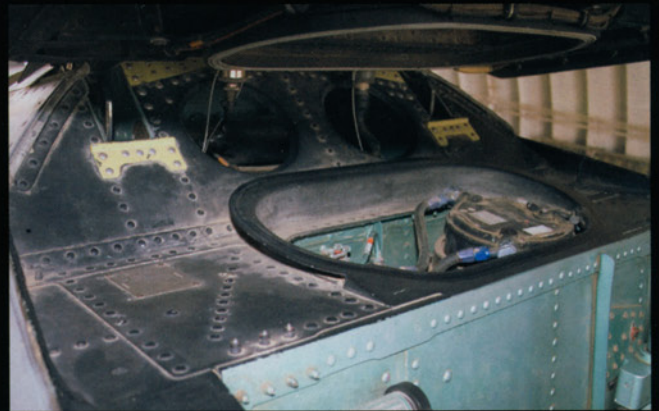
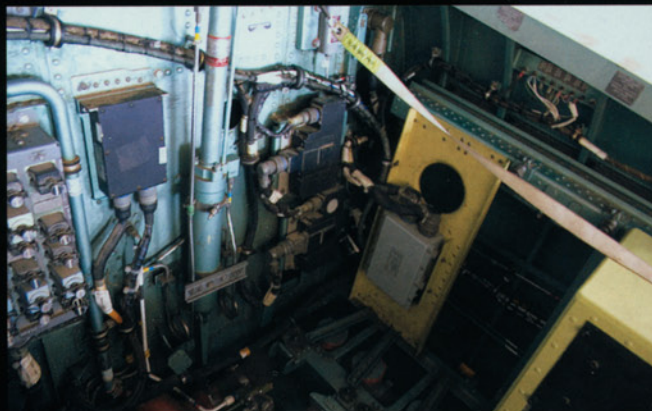
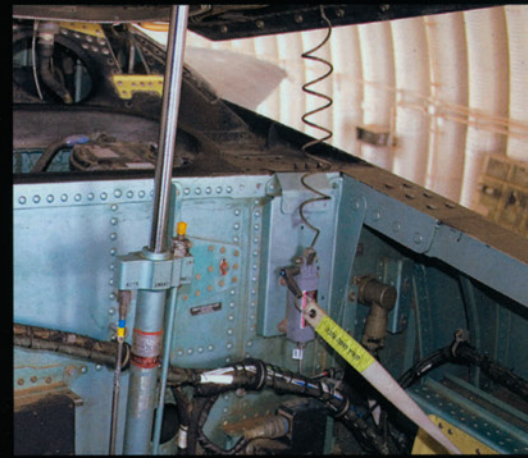
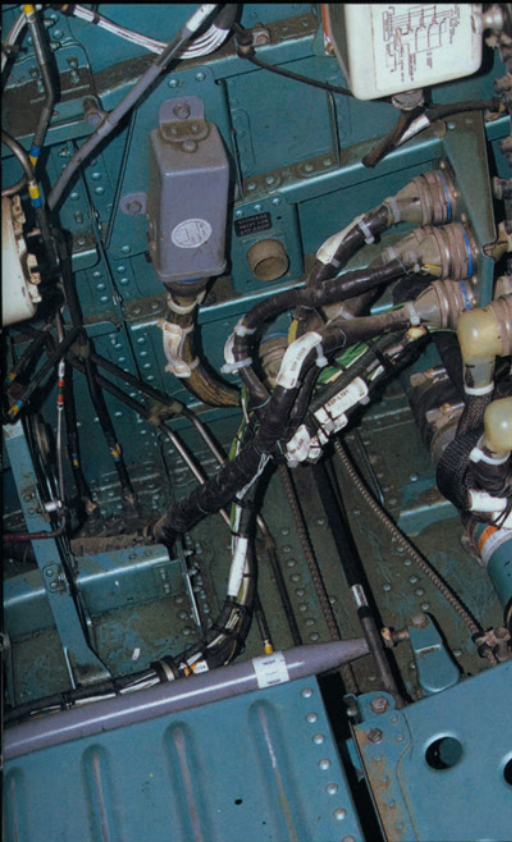
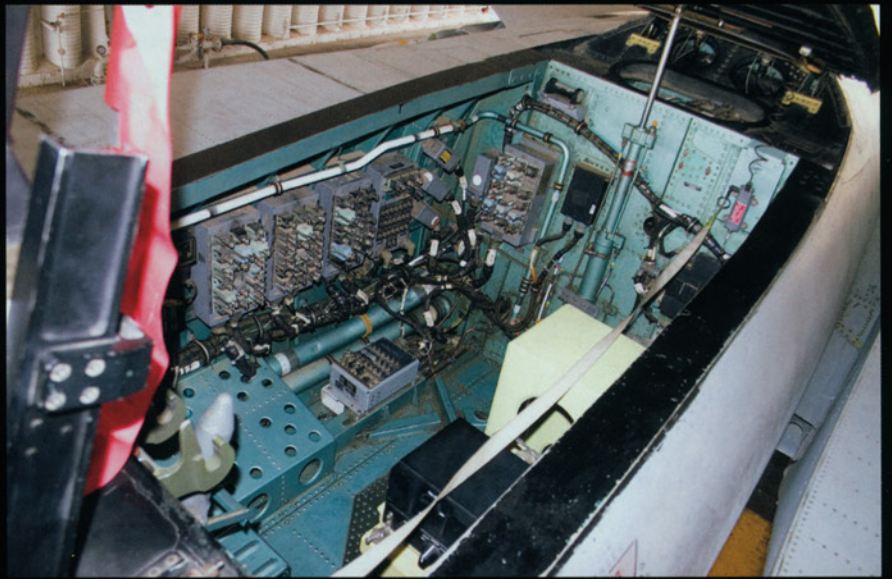
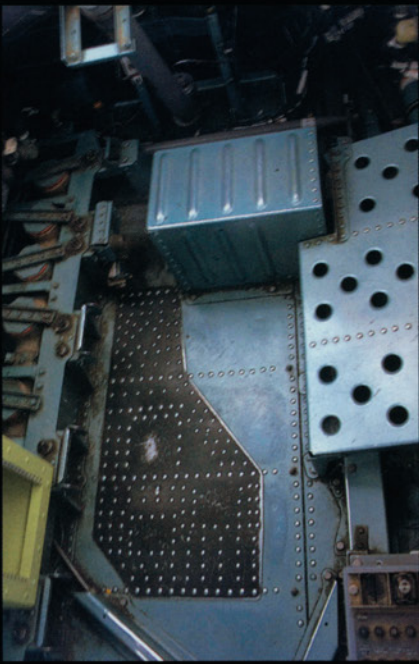


Front Cockpit

Avionics Bay

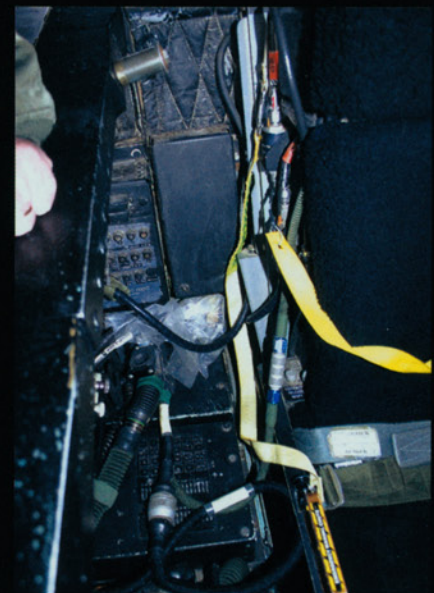
Avionics Bay of an "Improved Baz"

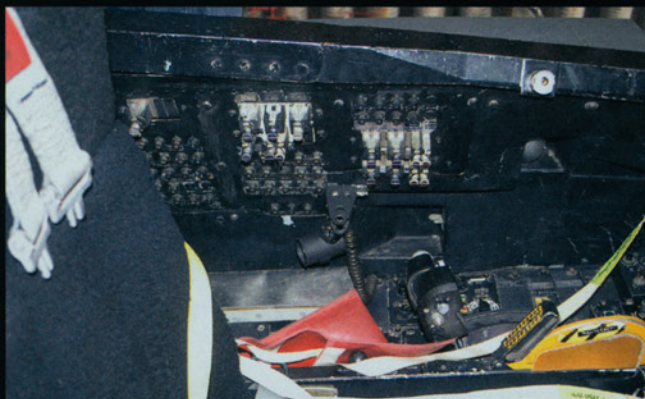




Rear Cockpit

Rear cockpit of an "Improved Baz"

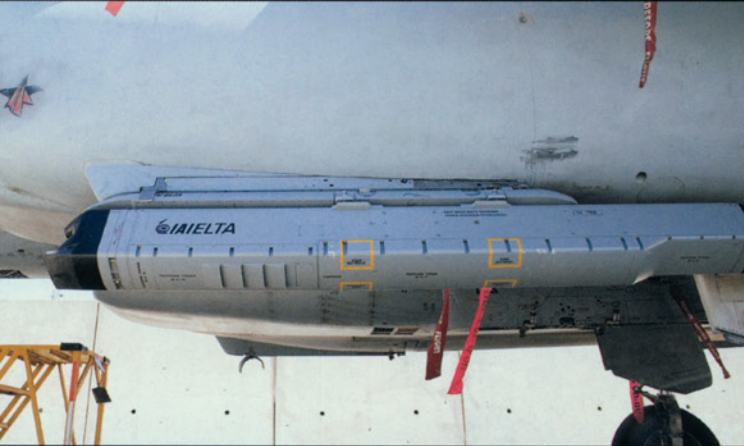




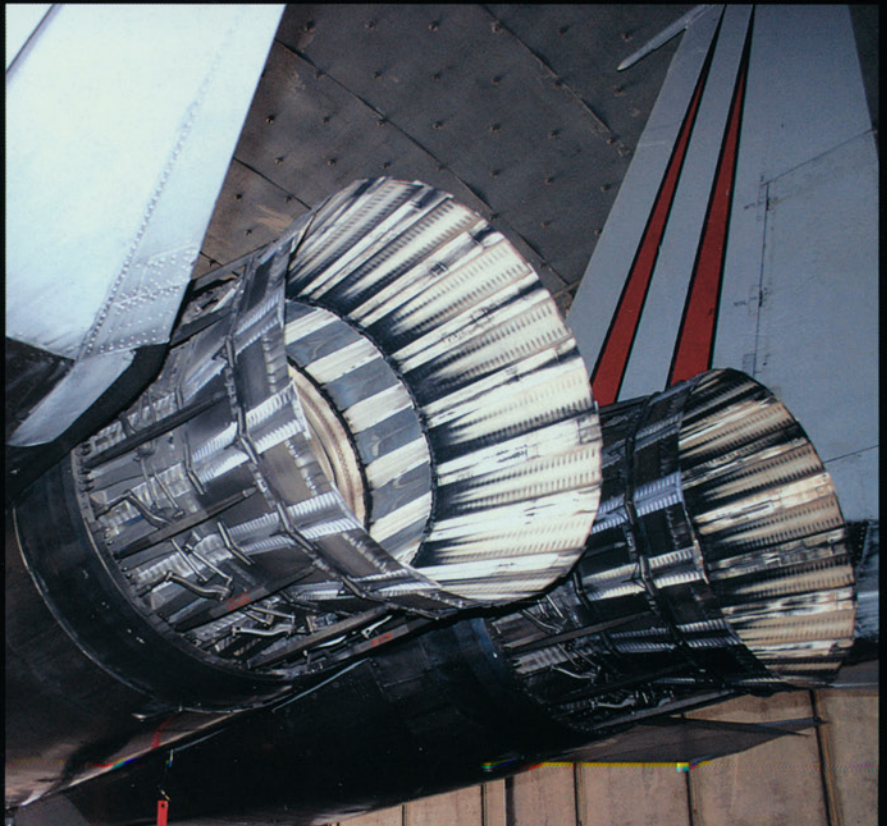
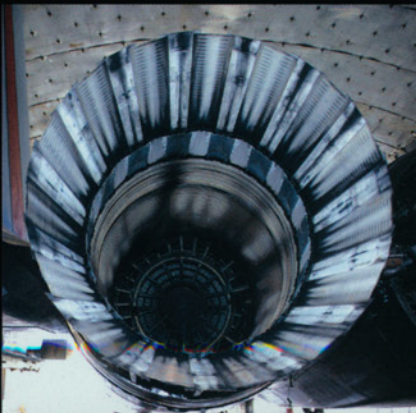
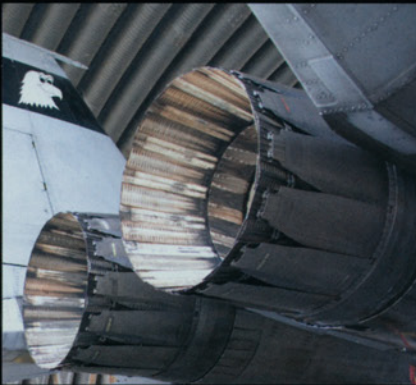
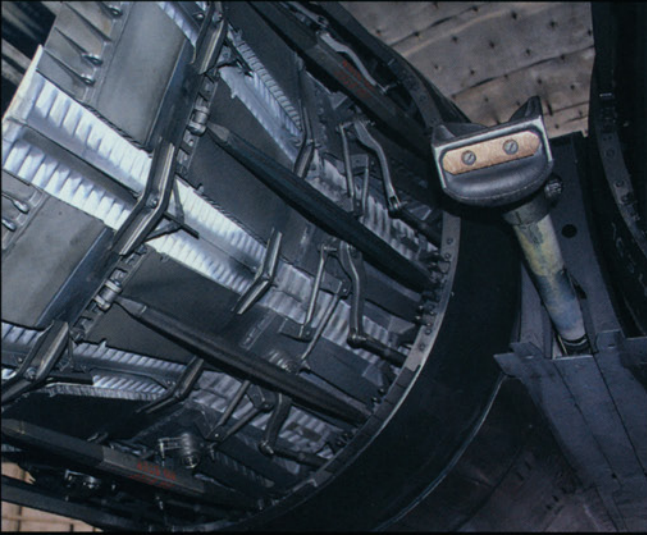
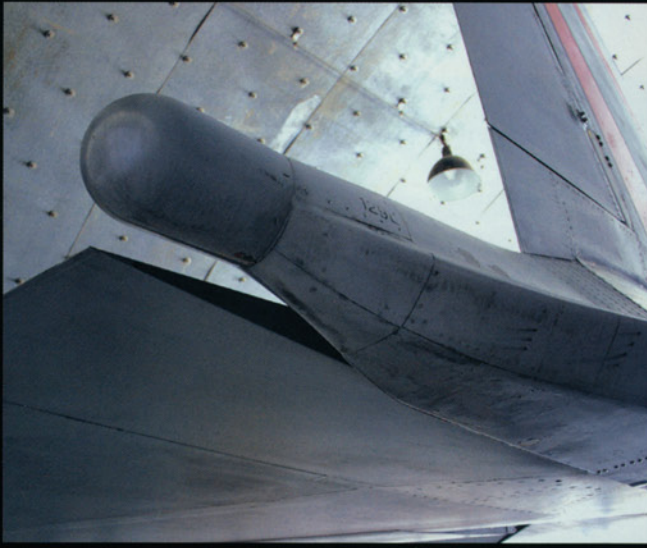
Rear Cockpit

IAI ELTA EL/L-8212/22

Electronic Warfare Pod



Aerials - Chaff/flare Dispensers Jet Exhaust



IAI ELTA EL/L-8212/22 Aerials - Chaff/flare Dispensers - Jet Exhaust

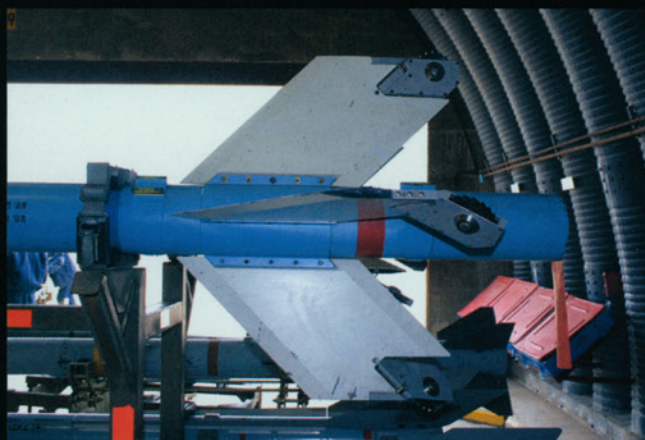
RAFAEL Python 4

Air to Air missile



RAFAEL Python 3

Air to Air missile



RAFAEL Python 4 - Python 3

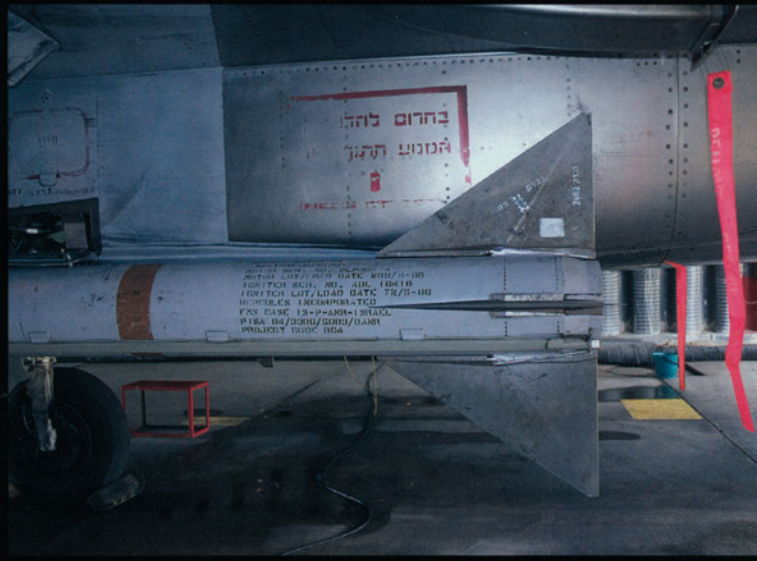
AIM-120 AMRAAM

Air to Air missile



AIM-7 Sparrow

Air to Air missile



AIM-120 AMRAAM - AIM-7 Sparrow



Photo: Ofer Zidon



Photo: Ra'anán Weiss



Photo: Ra'anán Weiss

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